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THE NEXT ANNUAL MEETING OF THE MASSACHUSETTS MEDICAL SOCIETY WILL BE HELD IN WORCESTER, THE SECOND WEDNESDAY IN JUNE, 1928.

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The Massachusetts Medical Society

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THE BOSTON
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The Massachusetts Medical Society

PROCEEDINGS OF THE COUNCIL

STATED MEETING, OCTOBER 5, 1927

A STATED meeting of the Council was held in John Ware Hall, Boston Medical Library, Wednesday, October 5, 1927, at 12 o'clock, noon. The President, Dr. John M. Birnie of Springfield, was in the chair and the following 128 Councilors present:

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W. D. Kinney

BERKSHIRE
T. P. Hennelly

BRISTOL NORTH
W. H. Allen

BRISTOL SOUTH
R. B. Butler
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F. W. Snow
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H. L. Seavey
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F. G. Smith
C. H. Staples
E. H. Stevens
A. K. Stone
H. W. Thayer
Fresenius Van Nys
H. J. Walcott

NORFOLK
F. G. Balch
D. N. Blakely
F. A. Bragg
W. L. Burrage
F. P. Denny
C. S. Francis
J. B. Hall
A. H. Hodgdon
Joseph Holzman
I. R. Jankelson
G. W. Kaan
E. B. Lane
S. F. McKeen
E. C. Norton
Victor Safford
F. S. Schmidt
R. D. Schmidt
P. R. Withington

NORFOLK SOUTH
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C. A. Sullivan
N. R. Pillsbury

PLYMOUTH
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C. H. Colgate
J. H. Drohan
G. A. Moore
A. C. Smith

SUFFOLK
E. P. Joslin
A. W. Allen
A. E. Austin
J. W. Bartol
Horace Binney
W. J. Brickley
L. T. Brown
David Cheever
A. L. Chute
R. C. Cochrane
A. H. Crosbie
G. S. Derby
R. L. DeNormandie
R. I. Lee
G. A. Leland
J. H. Means
T. J. O'Brien
R. B. Osgood
W. R. Sisson
C. M. Smith
Robert Soutter
J. S. Stone
W. T. S. Thorndike
G. L. Tobey, Jr.
Conrad Wesselhoeft

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Homer Gage
J. J. Goodwin
R. W. Greene
David Harrower
E. L. Hunt
A. G. Hurd
A. W. Marsh
S. B. Woodward

WORCESTER NORTH
A. F. Lowell
W. E. Currier

The minutes of the last meeting were read in abstract by the Secretary and as no omissions or errors were noted they were accepted as read and as printed in the Proceedings in the official organ of the Society. Dr. D. N. Blakely, Chairman, read the report of the standing Committee on Membership and Finance, on membership, that follows, and it was accepted and its recommendations adopted:

REPORT OF THE COMMITTEE ON MEMBERSHIP AND FINANCE, ON MEMBERSHIP

The Committee on Membership and Finance makes the following recommendations as to membership:

1. That the following named three Fellows be allowed to retire under the provisions of Chapter I, Section 5, of the By-Laws:

1. Jackson, William Benjamin, Stamford, Conn., as of December 31, 1927.
2. McGauran, Michael Sheridan, Lawrence, as of December 31, 1927.
3. Mignault, Rodrigue, Lowell, as of December 31, 1927.

2. That the dues of the following named three Fellows be remitted under the provisions of Chapter I, Section 6, of the By-Laws:

1. Beaulieu, Francis Xavier, Taunton. (For 1927.)
2. Donahue, William Francis, Cambridge. (For 1927.)
3. Finn, Edward William, Brookline. (For 1925, 1926, 1927.)

3. That the following named four Fellows be allowed to resign, under the provisions of Chapter I, Section 7, of the By-Laws:

1. Arnold, Horace David, Brookline, as of June 15, 1927.
2. Charteris, Mary Alena, Worcester, as of December 31, 1927.
3. Hatt, Ednah Swasey, Longmeadow (with remission of dues for 1925, 1926, 1927).
4. Stick, Henry Louis, Philadelphia, as of December 31, 1927.

4. That the following named seventeen Fellows be deprived of the privileges of fellowship, under the provisions of Chapter I, Section 8, (a) and (b), of the By-Laws:

1. Benoit, Samuel Joseph, Gardner.
2. Cullen, Charles Andrew, Springfield.
3. Diehl, Harold Edgar, Quincy.
4. Dodge, Percy Lorraine, Brighton.
5. Emery, Robert Lovett, Winchester.
6. Fitzgerald, James Bernard, Boston.
7. Fuller, Solomon Carter, Boston.
8. Gillam, Anna Jeannette, Cleveland, Ohio.
9. Gorman, John William, Brockton.
10. MacLeod, Emily Clark, Hyde Park.
11. McDonald, John Francis, Lynn.
12. Raleigh, Walter Melvin, Springfield.
13. St. Marie, Philip, Springfield.
14. Smith, William Russell, formerly of Taunton.
15. Stafford, Frank Dalmon, North Adams.
16. Thorpe, Franklyn, formerly of South Boston.
17. Warren, Edward Dane, Holyoke.

5. That the following named Fellow be allowed to change his membership from one District Society to another without change of legal residence, under the provisions of Chapter III, Section 3, of the By-Laws:

From Essex South to Suffolk

1. McCarthy, Humphrey L., Lynn.

DAVID N. BLAKELY, *Chairman.*

The Secretary read the reports of the committees appointed at the last meeting to consider the petitions of the following Fellows to be restored to fellowship and they were voted restored under the usual conditions: J. D. McCarthy, L. H. Rockwell, H. A. Rosa. The committee appointed to consider the petition of M. G. Conlin for the same purpose recommended that he be restored provided he pay only the dues for the current year, and the recommendations of the committee were accepted. In the case of H. P. Kazanjian the committee recommended that he pay within a month $17. of his past dues plus the dues for the current year and it was so voted. For three new petitions for restoration the President nominated and the Council appointed the following committees:

C. A. Davenport	E. A. Andrews L. H. Jack H. W. Thayer
F. A. Robinson	E. D. Williams J. G. Hanson A. J. Bonneville
J. P. Graham	E. L. Davis A. G. Rice Dudley Carleton

On nomination by the President the following committee was appointed to audit the Treasurer's accounts:

P. R. Withington
Gerald Blake

The chair explained that in the past history of the Society it had been customary to revise the By-Laws of the Society, on an average every five years; it was now seven years since they had been revised; there had been several amendments to them since 1920 and changes so that the By-Laws did not fit the present requirements of the Society. On motion duly made and seconded he nominated and the Council appointed this committee:

J. W. Bartol (Suffolk)
W. L. Burrage (Norfolk)
H. G. Stetson (Franklin)
H. W. VanAllen (Hampden)
Henry Jackson, Jr. (Middlesex South)

Dr. T. J. O'Brien, Vice-President, made a short report of his attendance with Dr. J. B. Blake at the annual meeting of the Maine Medical Association last June, as delegates from the Massachusetts state society. They both addressed the Maine association and at the evening banquet Dr. J. S. Stone was the principal speaker. The Council appointed Dr. H. W. Van Allen of Springfield, a delegate to the annual meeting of the Vermont State Medical Society at Middlebury, October 13-14, 1927; Dr. J. A. McLean of West Somerville, a censor and councilor of Middlesex South, in place of H. E. Buffum, deceased; Dr. F. T. Lord of Boston, a member of the Committee of Nine, in place of H. D. Arnold, resigned and Dr. S. F. Curran of Dorchester, a councilor from Norfolk in lieu of H. D. Arnold, resigned.

Considering the place and date of the next Annual Meeting of the Society Dr. W. T. S. Thorndike, Chairman of the Committee of Arrangements, announced that as yet he had made no plans for the meeting. It was moved and seconded that authority be given to the Committee of Arrangements to move forward one week or to postpone a week from June 12-13, 1928, the date of the meeting. This was discussed by the Secretary and Treasurer and was carried by a show of hands. Dr. E. F. Cody discussed the advisability of holding the annual meeting in October instead of in June; he spoke of the many

commencements of colleges and schools in June and although all of the New England state medical societies except Vermont meet in May or June he thought that October had much to commend it as a time of meeting. Dr. F. H. Washburn, president of the Worcester District Medical Society, extended a cordial invitation from that society, voted unanimously at their last meeting, to the parent society to meet in Worcester next June. He thought that Worcester had many attractive features; it is the Heart of the Commonwealth and being so centrally situated, easy to reach; the Society had last met in that city in 1851—many of the Fellows would not remember the event; he hoped the invitation would be accepted. On motion, duly seconded, it was voted unanimously to accept the invitation of the Worcester society. According to custom, when the Society meets away from Boston, the President nominated and the Council appointed as chairman of the local committee of arrangements for the annual meeting next June, Dr. A. W. Marsh of Worcester, with power to form a committee to arrange for and to conduct the meeting in coöperation with the standing Committee of Arrangements.

On motion by Dr. D. N. Blakely, it was voted to fix the annual assessment for 1928 at $8.00. Dr. J. F. Burnham, Chairman of the standing Committee on Medical Education and Medical Diplomas, moved that his committee be asked to revise the list of medical colleges and schools diplomas from which are accepted by the Council from candidates for fellowship, and it was so voted. Dr. J. W. Bartol took the floor and explained the need of a salaried assistant to the President particularly as regards legislative matters. The amount of work had increased of late years; the Society had been uncommonly free from any imputation of lobbying at the State House, but there is an absolute necessity that a society of the importance of the Massachusetts Medical Society should be appropriately represented before the committees of the Legislature, something which calls for the expenditure of much time, an unfair burden on the person who occupies the office of president, who, under the terms of the By-Laws, is chairman of the standing Committee on State and National Legislation. He *Moved,* That if the occasion requires, the President is authorized to appoint and direct the services of a salaried assistant. Should this motion be passed it would come automatically, under the provisions of Chapter IV, Section 8, of the By-Laws, before the standing Committee on Membership and Finance for an appropriation. He thought the subject should have a thorough discussion. Dr. E. H. Stevens, who had been for many years a member of the Committee on State and National Legislation, seconded Dr. Bartol's motion; he mentioned the amount of time expended by the President in visiting the District Medical Societies throughout the State. Dr. C. E. Mongan announced himself as thoroughly in sympathy with the motion; he spoke of societies in other states that spend large sums of money in keeping in touch with lay organizations having to do with the public health, through field agents; he thought that the President of this society ought to be relieved of some of his arduous work and hoped the motion would pass. The Secretary spoke of the assistance that could be given by a salaried assistant in planning and carrying on the annual meetings; times have changed and the Society has grown; professional organizers of society meetings leave something to be desired—they are too commercial for such a society as this. Dr. T. J. O'Brien thought that the duties of the officers of the Society could be arranged in three groups; first, the advancement of the Society; second, the promotion of better fellowship among practitioners at large; third, details of administration. He pointed out that the Committee Room at 126 Massachusetts Avenue, Boston, has been outgrown, more room is needed; he considered that the position of salaried assistant depended wholly on the personality of the man who was to fill the office; he was glad to say that Dr. James S. Stone had finally consented to take it and he felt sure that the type of work to be accomplished was thus assured. The motion being put was passed unanimously. The chair called attention to the coming centennial anniversary of the *Boston Medical and Surgical Journal* next February, he thought that some cognizance of the occasion should be taken by the Society, which owns the *Journal.* On motion by Dr. E. P. Joslin, duly seconded, it was *Voted,* That the Committee of Nine be empowered to make suitable arrangements for the commemoration of the one hundredth anniversary of the founding of the *Boston Medical and Surgical Journal,* next February. The chair spoke of the policies of one insurance company, which insures Fellows against suits for malpractice, that are to be reclassified next month; of the need of advice that Fellows feel as regards insurance; that although the Society may not, under the terms of its charter, have any direct dealing with insurance it may advise its membership as to the advantages and disadvantages of different policies, unofficially, of course. He thought that a committee might be appointed to consider the question of insurance and to advise the Fellows through the columns of the *Journal* or otherwise. On motion duly seconded, the President was authorized to appoint a committee of three to advise on commercial insurance. He appointed the following:

A. G. Rice (Hampden)
A. H. Crosbie (Suffolk)
C. A. Sparrow (Worcester)

Dr. J. P. Shaw of Plymouth raised the question of the ethical standing of free clinics and introduced the following motion: *Moved,* That

a standing Committee on Clinics and Health Associations is hereby created consisting of one member elected by each District Medical Society, whose duties shall be to investigate Clinics and Health Associations and to report to the Council. Dr. Shaw explained the reason for such a motion. As president of the Plymouth District Medical Society he had appointed a committee of that society to investigate certain abuses of clinics in Brockton that had been brought to the notice of the members; he thought the question of the abuse of medical charity too large a one to be handled by a local society and therefore he had brought it to the Council. The motion was discussed by F. P. Denny, A. L. Chute, Edward Mellus and by David Cheever, who, as chairman of the standing Committee on Ethics and Discipline, had had the situation in Brockton brought to his attention informally last June. It was to come before his committee at its next meeting; he would welcome the appointment of a special committee on such an important subject. Dr. C. E. Mongan talked on the abuse of medical charity and favored the appointment of the committee; in his city he had observed cases of wealthy persons who had been treated without charge at large hospitals. Several Councilors objected to the proposed committee as being unwieldy and unworkable. Dr. J. F. Burnham moved an amendment deleting the word "standing" before the word "committee"; the amendment was seconded by Dr. S. B. Woodward and passed. The original motion, as amended, was carried by a standing vote of 67 to 43.

Adjourned at 1:25 p. m.

WALTER L. BURRAGE, *Secretary.*

ORIGINAL ARTICLES

INTRODUCTION OF DR. RUDOLPH MATAS*

BY C. A. PORTER, M.D., F.A.C.S.

IN 1914 the Boston Surgical Society was incorporated with fifty active members in general surgery and the allied specialties. In 1915 the late Dr. William Sturgis Bigelow wrote to Dr. George H. Monks, then President of the Society, as follows: "I should like to establish a prize in the form of a gold medal to be called the Henry Jacob Bigelow Medal for new and valuable work in surgery, or connected with it, the medal to be awarded by the Boston Surgical Society at suitable intervals." The form and details of this beautiful medal were arranged between the sculptor, Mr. Brenner of New York, and Dr. G. H. Monks, who devoted to it his usual patience and good taste.

Our local medical history has been characterized by the number of families in which the Aesculapian tradition had passed from father to son over several generations. Of these families, none have carried a more honored name than that of Bigelow. The first Jacob, "had perhaps the greatest intellect in the history of New England medicine. His essay on Self Limited Diseases (1842) is immortal." I quote from Dr. F. C. Shattuck's recent tribute to Sturgis Bigelow. The second, Henry Jacob, "dominated surgery in Boston in his day, had some live coals of genius, and a fascinating personality." The third, William Sturgis, whose recent loss was greatly mourned, was trained as a scientist in days before medical science received, in this country, its proper recognition. "He had controlled imagination, a power of accurate observation, and keen analysis, which might well have led to fame, but his health was never robust, nor was his real bent toward the practice of medicine. In 1881 he went to Japan and there remained for seven years." For these reasons the name of Sturgis Bigelow is less well known to medicine than to philosophy and oriental art.

In a parish close to New Orleans, in the year 1860, an only son was born to a Spanish physician from Gerona. Both parents were of old Catalonian families. This son grew up in Spain and France until his return, at the age of ten. He received his M.D. degree in 1880 from what is now Tulane University. From that day his unusual ability and extraordinary capacity for hard work has resulted in ever-increasing honors, not only in medicine, but also in civic circles. For years Demonstrator of Anatomy, and editor of the local medical journal, correspondent and member of many foreign societies, he was appointed Professor of Surgery at his university when only thirty-four years of age. One is bewildered by his versatility, on reading the list of his contributions, and by his unequaled erudition, as shown in the monographs themselves. A mere statement of the official positions he has occupied, of the addresses he has given, of the societies, lay and medical, here and abroad, of which he is a member, would occupy much of the hour. He has twice received an LL.D., and also a degree of Sc.D. He has been president of all of the local and important national medical societies, and has just retired as President of the American College of Surgeons. In an address delivered before the Mississippi State Medical Society in 1915 he chose as his title "The Soul of the Surgeon," and therein stands self-revealed. So, also in an apprecia-

*These remarks and those of Dr. Cushing which follow were presented before the Boston Surgical Society, November 1, 1926, on the occasion of the presentation of the Henry Jacob Bigelow Memorial Medal.

tion of the late Professor Halsted, though of quite different temperament, he understood him thoroughly because he possessed many of his qualities.

From the dawn of medical history, the nature of an aneurysm, a local dilatation of an artery, or an abnormal communication between an artery and a vein, occupied the attention of such men as Galen in the second century, Antyllus, Philagrus, Anel, John and William Hunter. In more modern times the true nature and varieties of aneurysm have become better understood. Many surgeons have added improvements to the treatment of this classical disease. The operations, however, have all been destructive in their nature, consisting of the ligation of the artery or extirpation of the sac. The object of these operations was to destroy the aneurysm by cutting off the circulation, often with grave danger to life and limb. In 1888 our guest made his greatest contribution to surgery, which he has continuously improved since that time. His operation was a basic new principle to preserve the circulation by a constructive operation within the sac, or to obliterate this sac by sutures placed within it. Ninety-four per cent. of cases with this formidable disease have been cured by his technique. For this operation the surgical world pays him tribute. His genius, like a bright jewel with many facets, has illuminated many of the dark places in surgery. To know him is to realize the heights of his idealism and to fall at once under the spell of his lovable personality.

I present to you Dr. Rudolph Matas, Professor of Surgery at Tulane University, who will deliver an address—"The Surgeon, His Science and His Art."

PRESENTATION OF THE MEDAL

BY HARVEY CUSHING, M.D., F.A.C.S.

"Rudolph Matas: Through the generosity of a man, whose recent death we greatly lament, it has been made possible for the Boston Surgical Society to confer from time to time, at their discretion, and in memory of his distinguished father, a medal upon those who likewise have attained particular eminence as surgeons.

"This society has already bestowed the award upon a surgeon of the Middle West, the organizer and main-spring of a famous clinic; then upon another, justly regarded as the doyen of American surgery, a man of imperishable youth, whose sesquicentennial, it is rumored, is being held in his native Quaker city. It now has again unhesitatingly, unanimously, and fittingly voted the award to you who represent still another section of our vast country.

"The surgery of the South flows by your door as do the waters of De Soto's mighty river by the levees of the romantic city which claims you. But you, sir, on your record, would have been our choice, residing in any land. Chance only has placed us in a common nation. The Louisiana purchase; the migration to Bonnet Carré of a Spanish physician your father; the preservation of the Union. These three happenings conspired to make you a great leader in American surgery, instead of the great leader that you otherwise might have been in the surgery of your father's native Spain where you had your boyhood education; or in what might have been the Southern Confederacy; or, indeed, in what might have remained Colonial France.

"In your professional life you have exemplified what Guy de Chauliac said the surgeon should be:—'Bold when sure; Cautious in danger; Kind to the sick; Considerate of your fellow workers; Uninfluenced by gain.' But you have been more than this. You have been a faithful and inspiring teacher in your Alma Mater to a host of students this past forty-six years. You have made notable additions to knowledge. Yet your generosity has led you habitually to magnify the importance of work done by others; your native modesty to minimize the importance of your own. Your contributions have been characterized not only by a Castilian brilliance of conception, but by a Gallic gift in exposition which we inarticulate people largely of Puritan ancestry can but envy and admire.

"Representing the Boston Surgical Society, it is my privilege to present to you, the best-beloved resident of your city and state, to you already showered with honours, as a token no less of our appraisal of your professional accomplishments than of esteem for your personal qualities, this Henry Jacob Bigelow medal."

THE SURGEON; HIS SCIENCE AND HIS ART

An Address at the Presentation of the Henry Jacob Bigelow Memorial Medal by the Boston Surgical Society on November 1, 1926. (Including a Tribute to Dr. William Sturgis Bigelow and Remarks on the Acceptance of the Medal).

BY RUDOLPH MATAS, M.D., F.A.C.S.

It is now well nigh 48 years (1878) since the name of Henry Jacob Bigelow was impressed upon my mind as that of a great surgeon. I was then a student at the Medical Department of the University of Louisiana (now Tulane) attending the lectures of Dr. T. Gibson Richardson, who was our Professor of Surgery. On one occasion, a patient suffering from a recent dislocation of the hip joint was brought to his clinic, in the amphitheatre of the Charity Hospital. He examined the man and, after confirming the diagnosis of a backward dislocation on the dorsum ilii, had him placed over a blanket on the floor and anesthetized. Chloroform was still the anesthetic of the South in those days, and it was given until the patient was completely relaxed. The operator then seized the limb in a powerful grasp; flexed the thigh on the pelvis, and began a series of rapid manoeuvres which, in a moment, brought the dislocated limb in perfect parallelism by the side of its fellow, leaving no sign of its original deformity. The femur had gone into place and everything had been done so quickly and noiselessly that it all looked like a bit of jugglery. The reduction had been effected, and we were still waiting for a snap that would announce the return of the bone into its socket, when Dr. Richardson signed the anesthetist to stop. The performance was over. It was a brilliant exhibition of skill which was promptly greeted by the astonished students with a loud peal of applause, common in those days. Dr. Richardson commanded silence and with characteristic modesty said, "Gentlemen, you are mistaken in your praise, it is not I whom you should applaud but Professor Bigelow of Boston, one of America's greatest surgeons. It is he who has made this otherwise difficult reduction so easy for me."

It was not long after that the students, with characteristic ingenuity, had devised the word "*Falre-y,*" as a mnemonic aid to remember the series of manipulations that Bigelow's flexion method for backward dislocation called for; Flex, Adduct, Lift, Rotate, Extend, and Y stood for the Y ligament of Bigelow. This was one of the formulas that they felt might be serviceable some day in the quiz and in the green room. While the catch word has no doubt been forgotten long since, the name of Bigelow has remained impressed on the minds of the men of that class as that of one of the most inventive masters of American surgery[1].

Not long after this event, about 1881, when serving as assistant to Professor Richardson, I had occasion to familiarize myself with a new word, which had not yet found its way into the lexicons of the day. It was *litholapaxy,* a word which had been coined expressly to designate another of Dr. Bigelow's epochal inventions.

I then learned that the term "litholapaxy" had been evolved out of the scholarly mind of that "genial autocrat" of American letters, Oliver Wendell Holmes, a colleague of Dr. Bigelow and his friend. It was Holmes also who had devised the word *anesthesia* to designate the most stupendous discovery that America, in 1846, gave to the suffering world. This discovery is inseparably linked with the name of Bigelow, as its chief advocate and promoter, and as the champion of its discoverer,—W. T. G. Morton. Bigelow was the first to announce the discovery to the world and the first to establish the claims of ether as a general anesthetic on a solid and enduring foundation. He did for ether in America, what Simpson, a year after, did for chloroform in Europe. As Dr. A. T. Cabot once said: "Dr. Bigelow's own aversion to giving pain must often have caused him to look back with peculiar pleasure upon his share in alleviating surgical suffering." It is questionable, in fact, whether Bigelow would have developed all his skill as an operator, or perfected his methods of reduction of hip dislocation, or his litholapaxy, in one sitting, before the days of anesthesia. Men of culture and refined sensibilities who were educated as surgeons turned away from surgery as it was practiced in the pre-anesthetic days. Others who lived in the transition period were able to attain distinc-

[1] When we think of the barbarous block and pulley methods which were in general use in all hospitals before Bigelow's day and which exercised traction with such tremendous force that it seemed as if the leg or arm would be literally torn away, I can only echo the sentiment expressed by my honored friend, Dr. Keen, when in his delightful reminiscent Bigelow address of 1922, he exclaimed, "What a blessed relief, your own—may I not say our own,—Bigelow (1869) and later Kocher, brought to these unfortunate patients by using gentle manipulative methods based on anatomical and surgical studies and experiments in hip and shoulder dislocations."

For a striking and unique illustration of the endless mischief that may be caused by unskilled attempts at forcible reduction of a hip dislocation, by violent traction, read Sir John Bland Sutton on: "The Surgeon of the Future" (Orations and Addresses; Heinemann, Lond. 1924).

tion only as operators, until anesthesia made their work, and all the advances that followed, possible[2].

In going back to litholapaxy, we must recognize that the attitude of surgery towards all crushing operations for stone in the bladder has been profoundly altered by the advances of the last fifty years. Bigelow's lithotrites and evacuators have been modified by a number of operators, but in all essentials they remain as unchanged as the solid principles upon which they are based.

With the advent of asepsis and the great advances in the methods of local, spinal and general anesthesia, the suprapubic incision with its free exposure of the interior of the bladder, its simplicity, greater safety, and other advantages, soon led to the abandonment of lithotrity, and of the perineal operations which, throughout the ages, from Hippocrates to Lister, had been regarded as a supreme test of surgical dexterity and skill. Later still, and long after Bigelow, the rapid development of cystoscopy by the discovery and perfection of the illuminating and operating cystoscopes, aided still further for diagnostic purposes by the even more phenomenal discovery of the X-rays, have so completely revolutionized this field of surgery, that little is left of its ancient glamour and above all of its dangers. In fact, the early diagnosis of vesical and renal calculus which is now made possible by the routine examinations of the cystoscopist, has enormously reduced the number of large stones that filled the cabinets and museums of the leading surgeons of the past generation. The nuclei for these stones are probably quite as frequent now as they were in the days of Bigelow, and of his predecessors, the lithotrists, who flourished as specialists and were famous in all countries and all ages. Now urinary stones have lost their importance since they are recognized, crushed, and extracted long before they attain a size large enough to require cutting operations for their removal, or the powerful lithotrites that Bigelow devised to crush them. Of the many formidable diseases and afflictions which have been subdued and practically shorn of all their terrors, few can show more strikingly and conclusively the gigantic progress of surgery in the last half century than stone in the urinary organs. None the less, Bigelow's litholapaxy will remain in history as a conspicuous mile-post to mark the ceaseless march of surgery.

* * *

I owe my early acquaintance with and interest in the great contributions that Dr. Bigelow's originality and inventiveness gave to Surgery, nearly half a century ago,—to my teacher, Dr. Richardson, who spoke of him frequently with praise and great respect. It was he who acquainted me with Dr. Bigelow's achievements long before they became the common property of the profession, and before the text-books and the current literature had made them familiar to medical students. I cannot help associating Dr. Richardson's impressive personality with the portraits that I have seen, and descriptions that I have read of Dr. Bigelow as he appeared in his maturer years. Professor Richardson has long since passed into eternity; he died in 1892, two years after Dr. Bigelow's death. Tall, full-bearded, with refined well-modelled features, his was a striking, strong, intellectual face; a face that was surmounted by a dome, which, to quote Dr. Holmes' description of Dr. Bigelow, "even that insolent Schopenhauer would have allowed, might well serve as the seat of a lofty endowment." Dr. Richardson was a commanding figure whom no one could meet, even casually, without respect. A pupil of Leidy and of Gross, he cultivated normal and pathological anatomy with the deepest interest. He wrote a text-book on anatomy, which was a vade mecum to our students for years before the days of Wilson and of Gray, and it was his consummate knowledge of anatomy that made him one of the most skilful operators of his time. His name is held in reverence, by us of Louisiana, as a generous promotor of the highest interests of medical organization. The memory of his good deeds is preserved to-day, not only in a memorial building dedicated to the study of the fundamental or pre-clinical branches of medicine, but by the record of unsurpassed service that he rendered as a teacher of Anatomy and Surgery; Dean of the Medical School of Tulane, and as a leader in the community and in the commonwealth. I have allowed myself to dwell on his splendid personality, not merely because of my respect and affection for him, which would be a matter irrelevant to this occasion, but, because it was through him that I first learned to associate the name of Bigelow with all that is best and highest in the traditions of American Surgery, and that I gathered this impression in the earliest

[2] In this connection the following extract from Lawson Tait's address in Surgery at the Birmingham Meeting of the British Medical Association in 1890 would seem pertinent. In speaking of Anesthesia he said: "This greatest of all medical triumphs broke down the barriers which had hindered the development of our art,-and a vast change in surgical practice became apparent. Not only were the horrors of the surgical theatre banished, but the type of men who could and did practise surgery was altered—in some instances,—though not for the better. In the days before chloroform (or ether) the man who "niggled" over an operation was avoided alike by patient and doctor. A man like Liston, whose manual dexterity is said almost to have approached the marvelous, had it all his own way. Syme, returning from London to Edinburgh, for many reasons, but no doubt chiefly, because his comparatively defective manual dexterity was very apparent in contrast with many of those with whom he had to be in rivalry. He never could cut decently for stone to the end of his days, and but for the aid of chloroform of his greatly disliked colleague (Simpson) we never could have had the splendid philosophical principles of surgery which Syme laid down. He never could have been the surgeon he was without the encouraging influence of an anesthetic. In the period of development of anesthesia (1847-1865) appeared men like Paget and Savory, who never could have been surgeons like Liston, Fergusson and Miller were, but who lived and mostly are living still to fill a higher and more useful post. They became surgical pathologists among the first of whom in date, we have to put Stanley, and now they are a goodly army. They have lifted us from mere craftsmanship to something approaching science. (C. Stewart McKay's most interesting life of Lawson Tait. Bailliere, Tindall and Cox, London 1922.)

days of my professional career, at a time when, even by the wildest flights of imagination, I could not have dreamt that I would be here to-day to do homage to his memory.

Dr. Bigelow's life and achievements have been made familiar to all students of American medical history by the numerous tributes paid to his memory by devoted and admiring contemporaries; by exhaustive biographies penned by talented and loving hands; and by the portraiture of the man and his time, painted on a colorful panoramic canvas by the hand of a master, who has brought out Dr. Bigelow's personality into admirable perspective on a background of history that is spread over the three decades and more, that have elapsed since his death[3]. It would be, therefore, not only presumption but folly, for me to attempt to interest you by a narrative of his life, even though I were competent to do so, and particularly in the presence of his successors, distinguished Fellows of the Boston Surgical Society, who breathe in his atmosphere and have continued his traditions with surpassing splendor.

There are, however, at least three outstanding features of Dr. Bigelow's professional career that appeal to me as fitting texts to the thoughts and reflections that are suggested by this occasion. The first of these is Dr. Bigelow's *manual dexterity* and his qualities as an operator, which stand for his Art. Professor David Cheever, his successor, and most competent to judge of his technical abilities, has been often quoted in his appreciation of Bigelow: "As a surgeon, he was a pupil of the French School[4]. To originality he added dexterity, and to dexterity, grace. He was alert, cool, practised. Whenever he appeared in the operating arena it was as a central figure. Precise in touch, supple in movement, he added the polish of the finished artist, and the nonchalance of the experienced operator. To see him operate was to recognize a Master."

But he was more than an Artist,—a virtuoso in his Art; he was a discoverer, an inventor and the creator of concepts that were unknown to the surgery of his time and generation. "He discovered the mechanism of the ilio-femoral ligament and he utilized its fibers in reducing dislocations of the hip joint. He discovered the tolerance of the bladder and he invented new instruments—lithotrites and evacuators which this tolerance of nature patiently endured, and thereby simplified the cure of vesical calculus, one of the most painful afflictions of mankind."

He was a promulgator and promoter of a new discovery, *Anesthesia,* and the first to proclaim its importance to the surgical world. In addition, he was the inventor of numerous instruments and appliances, which his mechanical genius supplied, and which added enormously to the resources of the surgeon. In doing all this, he introduced new principles, new concepts that contributed to the *science* as well as to the *art* of *surgery.*

But apart from this, he had a *soul* which was attuned to the finest vibrations of human suffering, and a heart that throbbed in unison with human sympathy. In one of his addresses, Bigelow thus reveals himself: "Science alone is inadequate to the duties of common practice. When the body is diseased, the mind falters and the invalid looks for sympathy,—for heart as well as head; for the philanthropist and not the philosopher." On another occasion, he reminds his students that at the bedside, "they acquire at once the language of disease and the language of suffering humanity, and while their scientific sense is educated, their kindly feelings are developed. They learn to listen patiently, to sympathize and to re-establish a facility in the manifestations of that tenderness which is generally on the surface in early youth, but which sometimes gets embedded beneath a stratum of indifference and insensibility." He

[3] W. J. Mayo: "In the time of Henry Jacob Bigelow." (Boston Surg. Soc., Medallist Meeting, June 6, 1921. Journ. Amer. Med. Assn., 1921; 77, 597-603.

[4] When Dr. Bigelow matriculated as a medical student in Paris that city had become the unrivalled center of medical learning in the world. It was during the most brilliant period of the reign of Louis Philippe (1830-1848) that medical students flocked to Paris from all quarters of the earth, including a large contingent from America and the New England States. At that time the city contained 8000 to 9000 students, and nearly 5000 of these were students of medicine. The strength of the Paris Faculty lay in its great schools of Anatomy and Surgery, for there was a plentiful supply of subjects for dissection, and for the study of operative surgery and pathological anatomy. In England, during the same period, dissection was looked upon with absolute horror, and the restrictions laid upon it led to the abominations of body snatching, Burkism, and other evils that are so eloquently denounced in Lord Macaulay's famous speech on the Anatomy Bill of 1843.

Availing themselves of their liberal laws and opportunities, the Paris Schools developed masters who attained the zenith of scientific and technical renown, and whose researches and discoveries in every department of medicine have left an indelible impress in our literature: Sappey, Breschet, Cloquet, in Anatomy; Claude Bernard, in Physiology; Cruvielhier, in Pathological Anatomy; Andral, Louis, Chomel, Bouillaud, and Trousseau, in Medicine; Roux, Depuytren, Lisfrance, Velpeau, Nelaton, Larrey, Malgaigne, Maisonneuve, Chassaignac, Marjolin, Jobert de Lamballe, Civiale,—are a few of the great stars that clustered in the medical firmament of Paris in Bigelow's day. "Never in the records of the human race have so many illustrious surgeons been gathered at one time in one city as were living in Paris at the time of Louis Philippe."

Not only was Paris the medical center, there were also the great art schools, the Conservatories of Music, the Theological Schools and Schools of any branch of science and philosophy.

"France was then in truth, the laboratory of civilization, in which experiments were made in art, literature, science, government, and even in vice, and Paris was the crucible in this laboratory, glowing with incandescence."

But apart from the stirring environment in which he lived, the national traits of the French gave certain character to their methods of instruction which were congenial to Dr. Bigelow's quick and mobile temperament, and their influence was noticeable in some of his own subsequent methods as a teacher and lecturer. Not inaptly did his pupil and successor, Professor Cheever, describe Bigelow as a man of the Latin rather than of the Anglo-Saxon type. His biographer, Hodges, states that "Although in later years Bigelow could make merry over his assiduous note taking and, with his pre-eminent power of imitation, burlesque French medical lecturers, yet even in pleasantry his remarks bore the earmark of more than superficial familiarity with the Ecole Pratique and the hospital clinics of Paris. There can be no doubt, I would add, that his great mastery of Anatomy and extraordinary skill as an operator were acquired in a large measure by his study of the French masters and through his opportunities for anatomical work in France.

See J. C. Da Costa: Medical Paris in the Reign of Louis Philippe: Univ. of Penna. Med. Bull., vol. xvii; 1905, pp. 11-22; Hospitals and Surgeons of Paris, by F. Campbell Stewart, New York, 1843; and H. Payson Arnold's Memoir of J. Mason Warren, vol. 1886. They are most illuminating and entertaining accounts of the cultural and other influences that radiated from medical Paris during Bigelow's student career.

never witnessed any manifestation of indifference to suffering without indignation. His hatred of suffering, "was indeed almost morbid." (Hodges.) He considered pain as the worst dispensation which could beset humanity, destructive to the affections, changing one's nature and making death desirable." To quote his own words—"The two greatest evils of life are ignorance and pain." To relieve this physical evil, was the physician's chief function. In 1871, he wrote; "In a practice of 25 years I have never voluntarily given a patient, unless by his own choice, any pain without narcotization; nor have I allowed a patient to die a painful death when opium would lull him into his long sleep. I share the responsibility of this with the surgeon who walked about the battle field, distributing morphine to those who were hopelessly wounded, and with the soldier mentioned by Ambroise Pare, who did more." And it was this attitude towards pain which extended his sympathy to the suffering of the lower animals that made him so outspoken and forcible in his denunciation of the *abuses,* as distinguished from the *uses,* of vivisection.

Here, then, we see embodied in this extraordinary man, the qualities of *head, hand* and *heart,* that tradition and the judgment of the ages have assigned as the attributes of a good surgeon, but which when exalted to the degree exhibited in Dr. Bigelow's career,—transcend the common levels of professional greatness, and lift him to the highest peaks of distinction in medical achievement.

I.

Surgery and the Surgeon; Definitions; Historical Associations; The Unity of Medicine and Surgery.

It may be well to premise what I have in mind with a few elementary considerations which would appear somewhat threadbare to a purely professional audience, but, I trust, pertinent and enlightening to the many here present who, I presume, are not so steeped in the history of surgery.

If we begin by asking what is Surgery and what is it that distinguishes the Surgeon from other practitioners of Medicine, you will find a general agreement in all the standard dictionaries in defining Surgery as "that part or department of medical science and art which is concerned with the cure of disease or bodily injuries, by *manual* operation";—and the Surgeon, "one whose profession is to cure bodily diseases and injuries by manual operation."

Simple and clear-cut as this definition may seem, the functions of Surgery and the relations of the Surgeon to the body medical, as we understand them today, are susceptible of further discussion and elaboration.

The status of Surgery and that of the Surgeon have varied with the changing phases of ancient, medieval and modern civilization; with the influences, political, intellectual, religious and social, that have come into play in alternately elevating, lowering, and again exalting the pure handicraft of Medicine as an agency for the exercise of its therapeutic and diagnostic mission,—and thereby, again in assimilating or detaching its art from its learning or its science.

At all times, from the legendary Homeric days of Greek civilization and ages before, the Surgeon has been identified with the treatment of wounds and external injuries and in this way has stood as the embodiment of the handicraft of medicine.

Five hundred years before the Christian era, Hippocrates and the Esculapians of the Temples of Cos and Epidaurus proclaimed the unity and interdependence of all branches of learning in providing for the care and cure of the sick, injured and disabled, and combined in the practitioner of Medicine *(Iatros)* the learning of the philosopher, with the art and skill of the operator. The ancient Greeks dignified the handwork of the Surgeon with the attributes of an art which they cultivated with a technical method, a mechanical skill and an aesthetic sense which, in spite of the limitations of their anatomical knowledge, lifted it almost to the level of a science.

They taught that the Physician worthy of the name[5] should be a *technites,* a man of the art, as well as *Sophos,* a man of learning. It is to the earlier Greeks that we owe the origin of the word *Chirurgy*—Surgery, for, as the etymology of the word implies, *Chirurgia,* is the work of the hands, and *Chirurgos,* surgeon, is the individual trained and skilled in using them for surgery.

And *Surgery,* in the Greek sense that we have inherited it, is a fine name, and well may we be proud of it, for it is Surgery that throughout the ages of the world's history, has been recognized as "the only art which has given the human hand not only the supreme privilege of penetrating, exploring, and working in the flesh of man, but of re-creating, and restoring some of his lost parts[6]. And in this, "the Surgeon's Art transcends all others, even that art, which has accomplished the marvel of transfiguring inert clay, marble and bronze, into dreams of

[5] The Greeks regarded the Healer as a naturalist, hence *Physician,* from *Phusis,*—nature,—one who studies the forces of nature to safeguard life.

[6] This fine thought is an echo of a similar sentiment which we find expressed in a different language, and always in a reverent spirit, by some of the ancient masters—Bullein, for instance, and even in modern times, by Lister. But it is to Jean Louis Faure,—the gifted poet and orator of contemporary French Surgery from whom I have quoted these lines and many others that are interspersed in this address,—that we must look to for the most inspiring interpretations of the psychology of the Surgeon. His "L'ame du Chirurgien" and "L'art et l'Esprit de la Chirurgie," and his numerous Eloges in the Bulletins de la Société de Chirurgie de Paris, are gems of pure literature, which in their lyrical quality, their pure idealism, their spiritual appeal and moral force, are unsurpassed in revealing the Latin spirit at its best.

beauty and aesthetic delight for the delectation of the imagination and the senses[7].

. . . From this we gather that the art of the Surgeon is inseparable from its craft, which is manifested objectively and essentially, if not solely, by the operations of the hand. Whether these operations be bloody or bloodless, it is plain enough that there can be no surgery where there is no operation. A Surgeon who does not operate, or has never operated, is no more a Surgeon, in the true meaning of the term, than the Painter who does not paint, the Sculptor who does not sculpture, the Singer who does not sing, or the Pianist or Violinist, or any other musician, who does not perform on his instrument. Individuals who would claim to be Surgeons, but who are incapable of giving objective demonstrations of their art are in the anomalous position of a certain teacher, who professed to know French and to teach French but could not speak it. But just as we cannot conceive of a handless Surgeon, much less can we imagine a brainless one. For it is the brain that directs and commands the hand; and just as the hand must be trained, drilled and disciplined to obey, so must the brain be taught and trained to learn *how* and *when* to command;—and this last is the function of the science and the art of Surgery, which is separate and distinct from the handicraft over which they preside.

If Surgery were a mere craft it would be still grovelling in the barber shop where it found a temporary abode and refuge in the hour of its greatest humiliation during the long night of the Middle Ages.

But it is now many centuries since Surgery rose from barbarism—and regained its intellectual freedom and the right to cultivate the handicraft with the skill and the dignity that Hippocratic tradition had conferred upon it, and which the intolerance of an age of bigoted and pedantic scholasticism and religious prejudice, mingled with feudalistic scorn of the manual arts, had denied it[8].

It is now many centuries since Surgery was the *ancilla humilissima Medicinae*,—the Cinderella of Medicine, her proud sister; when the Surgeon, shorn of all the attributes of learning and of his art, was left only in possession of his bare hands to be used solely for the humblest purposes, and then only by the prescription or order of the tonsured, long-robed, and sophisticated, medieval physicians,—they who sat aloft consulting the stars and the oracles of a dead antiquity, to guide them in their therapeutics. It was then that Medicine and Surgery divorced.

It is centuries since the dawn of that great day in the 16th century, which wakened humanity from its long slumber, and when the light of a new intelligence brought Medicine and Surgery to the full realization of the folly of their separation.

But it is only since Lister came in the 6th decade of the last century (a little over half a century ago), as the Apostle of a new Evangel, which was to regenerate surgery,—that the Surgeon's hands were purified so they might enter the holiest sanctuaries of the body without fear of desecration. It was then that Medicine and Surgery were reunited, and, joined in Holy alliance, have worshipped side by side in the same Temple ever since.

. . . Now in this twentieth century, when we speak of Surgery, we refer to a science and an art to which only a trained and educated physician can aspire.

The Surgeon, as we recognize him today, must be first a Physician; he must be grounded in the great fundamental knowledge of Medicine; he must have gone through the preliminary academical studies, which are the indispensable prerequisites, to enter the professional schools, with special insistence on the elements of the mathematical and physical, the chemical and biological sciences, which are steadily crowding the humanities out of the supremacy which they justly enjoyed before Medicine had become the complex, more exact, and exacting, science that it is today. With us, the student must go through the mental drill and the practical training that is afforded by the four years of study in a well-established medical school and, in addition, a fifth year as an interne in a general hospital.

He must know everything taught in the medical schools sufficiently, at least, to appreciate through his own mentality and judgment, and not through borrowed opinion, how to appraise

[7] That this comparison of the art of Surgery with the sculptural arts is not metaphorical, is most obvious in the plastic operations for the restoration of the nose and lips (Rhinoplasty Cheiloplasty) which in their visible sculptural effects have always appealed to the masses,—and with good reason—as one of the most artistic and marvelous triumphs of Surgery. This creative, reparative power of Surgery has been variously associated in different ages with the supernatural, either as a gift of the Divinity, and therefore to be sanctified (Sts. Cosmas and Damian), or, more often, in a pagan sense, as a sort of Promethean theft, and an impious attempt to usurp the powers of Heaven, and therefore, a sacrilegious performance. These Theurgic associations are well illustrated in the early traditions of Plastic Surgery, which, in the late medieval period, was restored and virtually recreated by the genius of Tagliacozzi, of Bologna (1546-1599). It is not surprising when we consider the spirit of the times and Tagliacozzi's extraordinary restorations of the nose and other parts of the face, so often mutilated in those days, in which there were swords in plenty and men were quick to use them, that his art should have been looked upon with suspicion even by such enlightened surgeons as Paré and Fallopius. To many of the clergy such re-creations were a blasphemous invasion of the prerogatives of the Creator, and were not to be encouraged. In consequence, we are told, that after Tagliacozzi's death and burial in the Convent of St. John the Baptist in Bologna, "his cries in everlasting torment,—as a damned soul,—so disturbed the Holy Nuns that there was nothing for it but to hawk up his body out of the tomb and restore it to unconsecrated earth. Even in 1742, that sublime body, the Paris Faculty, forbade such creative adventures altogether." (Allbutt, Historical Relations of Medicine and Surgery, p. 80, 1905, London.)

[8] In contrast with this medieval scorn for the handicrafts, note the dignity which the Ancients accorded it. "The Greek Physician had no more scruple in using his hands in the service of his brains than Pheidias and Archimedes. To the clear eye of the Ancient Greeks an art was not liberal or illiberal by its manifestations, but by its ends; as by its ends the cleansing and the solace of the lepers of St. Basil, St. Francis and Father Damian, was a service of Angels, so Hippocrates saw no baseness even in manipulations which obtained for his followers the name of Coprophagi" (Allbutt, loc. cit.).

and value the numerous auxiliary laboratories that modern science has given the Physician to compensate for the limitation of his physical senses. It is only after he has completed his medical studies and after he has had the advantage and benefit of this preliminary survey of the whole field of medicine that he is authorized to undertake the study of surgery as a distinct specialty.

At no time has the need for this preliminary preparation for the study of surgery been more apparent than at present.

The boundaries, that in the past artificially and yet clearly defined the province of surgery from that of medicine, have been effaced by the interdependence and the solidarity of a science that is common to both, and by their interests in fulfilling their mutual mission in the healing of the sick. The arbitrary classification, which for centuries assigned the care of the external, visible, accessible pathology of the body to the Surgeon as the *Externist* and the internal organs to the Physician who is still designated as the *Internist*, no longer obtains, for with the advent of Lister and of Asepsis the Surgeon has become more of an Internist than the Physician, since he penetrates, uncovers, manipulates and operates upon the hidden organs and tissues of the living, while the Physician can only see and palpate these organs after death.

So that the voices of the great medieval masters,—Bruno of Salerno, William of Salicet, Lanfranc, Henri de Mondeville[9] and Guy de Chauliac, rising in loud protest against the detachment of Medicine from Surgery which in their day had brought about the degradation and decadence of both,—reaches us no longer as a warning against the errors of the past, but as a confirmation of the wisdom of an alliance which the progress of the age, has made necessary and indissoluble.

It is in this union of the art of Surgery with the science of Medicine that the Surgery of the Twentieth Century has ploughed its way to the fulfilment of its greatest destiny. It is in this way that Surgery guided by the light of science has risen from a low state of almost abject subserviency to its present commanding position. It is by following in the wake of scientific progress, by utilizing every advance of each one of its elementary and ancillary branches, that Surgery has sought and found the light for the solution of its many and complex problems.

Therefore, we may repeat with conviction, that the Surgeon must be not only a Physician, but something more, and this *something more* is the *Art* which makes the Physician a Surgeon.

II.

The Handicraft of Surgery, its Distinctive, Exteriorized Expression. Whenever the art ceases to be operative, mechanical, manipulative or local, it is no longer surgical, but medical.

While the scientific foundations of medicine and surgery are identical, and both are nourished by the sap of the same tree, the art of the Surgeon differs essentially, and we may say radically, from that of the physician, in its therapeutic point of view, and in its methods, which, in the Surgeon, is essentially objective, inductive, mechanistic, manipulative, and topical or local, whereas that of the Physician is chiefly subjective, introspective, deductive, and systemic or general. Surgery projects from the body of medicine as a strong battling, therapeutic arm, in which the hand plays the leading part. It is the handicraft which gives Surgery its distinctive, exteriorized expression and when the art ceases to be operative, mechanical, or manipulative, it is no longer surgical, but medical.

From the very fact that its methods are manipulative or instrumental, the Surgeon approaches his problems from the outside; from without inwards; from the exterior to the interior; from surface to depth; and in this sense the Surgeon is an *externist*.

In the warfare with disease, Surgery may be compared to an armed force which, coming to the relief of a beleaguered fortress, attacks the enemy entrenched within its walls, from without; while Medicine, acting in concert, directs the defences and uses all its resources to repel the enemy from within.

But, as previously stated, since Lister and modern Asepsis have given the Surgeon free access to the interior of the body, the old distinction which assigned the *external* pathology to the Surgeon, and the *internal* to the Physician, no longer obtains, and the criterion by which we now distinguish between what is *medical* and what is *surgical* has shifted to a larger concept of the Surgeon's viewpoint and immensely increased the field of his activities. It

[9] Bruno of Salerno (1252) in his *Chirurgia Magna* bitterly resents the separation of Medicine from Surgery "by celibate clerks who-in false squeamishness shirked operation". William of Salicet (1201-1277) was as distinguished in Surgery as in Medicine, and, though a Cleric, was one of the protestants of the period against the division of surgery from inner medicine, a division which he regarded as a separation of Medicine from intimate touch with Nature.

Lanfranc (1315), a Cleric, saw clearly, the danger of separating Surgery from Medicine. "Good God!" he exclaimed, "Why this abandoning of operations by Physicians to lay persons, disdaining surgery as I perceive, because they do not know how to operate . . . an abuse which has reached such a point that the vulgar begin to think the same man cannot know medicine and surgery . . . I say, however, that no man can be a good physician who has no knowledge of operative surgery; a knowledge of both branches is essential." In Henri de Mondeville (1260-1320) and Guy de Chauliac (1298-1368) of Montpelier, both Clerics, we find the early masters who indicated for surgery its true place in medicine. Guy claimed for surgery only a place beside medicine and coeval with it. Henri rightly declared with Galen, that Surgery is but a method of treatment and belongs all to Medicine.

(See Allbutt loc. cit.) and Harvey Cushing, "The Physician and the Surgeon" (Presidential Address: American College of Surgeons: Surgery, Gynaecology and Obstetrics, Dec., 1892: No. 6, 35) wherein the relations of Medicine and Surgery are presented in a most comprehensive, modern and illuminating way.

is no longer a question whether the disease or lesion is external or internal, but the fact that the disease is localized, circumscribed, or confined in a well-defined part or organ of the body where it may be accessible to the Surgeon and his methods, which makes it surgical. When a disease or a disorder is general, diffused throughout the organism,—as when we speak of a disease as constitutional; when it is not distinctly localized or localizable in its cause or its effects; or when it is localized, but involves so great an area of the body, or a vital organ, the removal of which would be incompatible with life,—then that disease is not amenable to the external methods of surgical therapy, and is inoperable, it is not surgical, but medical.

Surgery, for this reason, was primarily identified in its origin, with the treatment of visible and tangible traumatisms, e.g. injuries, wounds, burns, fractures, dislocations; the extraction of foreign bodies, the correction of deformities, the removal of tumors, the amputation of limbs, etc.,—in fact with any disease dependent upon a localized cause, or upon the effects of such a cause, when it involved definite areas or regions of the body, and not, primarily, the organism as a whole.

When a patient comes to the hospital clinic, with a hare-lip, cleft-palate, a hernia, a broken bone, or a tumor, no one questions that such a patient is to be assigned to surgery. If a patient is brought in with smallpox, measles, pneumonia, or typhoid fever, no one questions that he must go to the medical ward.

Now, why are these distinctions between what is medical and surgical, so plainly and quickly established? Simply, because the patients assigned to surgery, presented lesions or affections which were so manifestly local, structural and of an anatomical character, that no one could reasonably conceive even without any knowledge of medicine, that such conditions could be influenced by any drug, or constitutional treatment, and that only an operation or some local intervention, could cure them; while the diseases assigned to medicine were so plainly and unmistakably systemic or constitutional, that no form of local treatment could possibly avail to eradicate them.

These are simple cases, but there are others and many, in which the cause and nature of the illness is not so plainly exhibited, and often challenges the intelligence of the ablest diagnosticians to decide their proper assignment; and there are others, and many others, in which the disease is recognized as primarily local, such as an ulcer in the stomach, an infected gall-bladder, or a tumor of the brain, in which the propriety of a surgical intervention is often debatable. These are the borderland cases, in which medicine and surgery merge in a common diagnostic, prognostic and therapeutic function; in which the Surgeon becomes a Physician, and the Physician a Surgeon, to view the problem offered by the patient, in the light of the resources, possibilities, and limitations of the art of each.

There are also many diseases which are classed as surgical, because they have had their beginning in some wound, inoculation, or local infection, such as septicemia, pyemia, erysipelas, tetanus, syphilis, hydrophobia, etc., and become systemic afterwards. There are also many general diseases, like typhoid, scarlet fever, influenza, pneumonia, diabetes, etc., which are often complicated with local lesions and secondary infections, that can only be relieved by operation. But in all these, after the Surgeon has played his part, the disease ceases to be surgical, and becomes purely medical, to be treated constitutionally by some form of medical or medicinal treatment.

While the principle that a disease, lesion or injury, must be local, and not systemic, to class it as surgical, is fundamental,—there are many other considerations that must be taken into account before it can be regarded as surgical from the point of view of treatment. Operability and curability by surgery are two different things. A patient may be operable, but there may be other non-surgical or medicinal methods of curing or relieving it, and a patient may be curable by surgery only, and yet be inoperable. Indications for surgery may be clear enough but the patient may be suffering from conditions or complications that would make an operation fatal.

But these are secondary considerations which are beside the general thesis which holds that a disease or lesion must be local, regional well-defined, and amenable to the methods of surgery, to class it as surgical or operable.

It is the mechanistic principle, the training and habit of looking at disease, injury or deformity, largely from an objective point of view, with a mind constantly alert in the search for localized, accessible, and removable causes, that influence the Surgeon's whole diagnostic and therapeutic attitude and that give a special cast to his anatomy, physiology and pathology, as he utilizes the data furnished by these sciences, to shape his clinical conclusions.

But it must not be supposed for an instant, that because the Surgeon's functions give him the habit of looking at disease from this focal point of view, that he can ever detach himself from the broad pedestal of medicine, or forget that he is first, last, and all the time, a physician, one entrusted with the care of the whole patient, and not a part of the patient, and who, as a clinician, views the organism as a whole, in relation to all its parts; one who is thoroughly in touch with the working of the human machine and is conscious of the unity, harmony and interdependence of its constituent organs and functions; one who is familiar with the systemic,

as well as local reactions which follow injuries caused by accident or disease and which disturb the physiological equilibrium of the whole body.

We must always bear in mind that it is only because the burden of knowledge and responsibility has become too heavy for one man to carry on his shoulders that modern physicians have been compelled to segregate their practice into medical and surgical, so that each could apply his special therapeutic qualifications with the greatest efficiency for the benefit of the patient.

The Surgical Operation,—the Highest and Most Important Function of Surgery.

In final analysis, our discussion seems to confirm the lexicographers in stating that the essential difference between the physician and the surgeon, lies in the handicraft,—the highest and most artistic expression of which, is the *surgical operation.* The operation has been described, and without exaggeration, as the apotheosis of surgery, since it synthetizes and puts into action all the knowledge and the skill that the Surgeon has acquired through his science and his art. It is the greatest function of Surgery, for, though many surgical diseases may be cured without resort to the knife, it is only through the trenchant assertiveness of the surgical operation,—its decisiveness and its conclusiveness,—that the difference between the art of the physician and that of the surgeon is unerringly established; and it is only by, and through, the operation, that we can qualify the Surgeon and measure his worth as such.

But to have the right to perform an operation, to have the right to attempt an act which may carry with it the life or death of one's fellows,—one must *know.* Yes! *Let me repeat* with the evangelic fervor of Faure, *"One must know!* to work in the flesh of man with a hand that must not falter in the accomplishment of its purpose." The Surgeon must indeed be sure in his innermost conscience that he has a right to undertake such an act, and this conviction and confidence in his power can come to him *only through knowledge,*—a knowledge, which he can acquire only by the prolonged study of the principles that govern his art and by a rigid and arduous training in the craftsmanship that can alone qualify him for its application.

III.

Surgery, a Science and a Liberal Art, which allows Great Latitude in Its Application and Its Interpretations. Different types of Surgical Craftsmen.

What then is this special knowledge? We have sufficiently insisted that Surgery is a science, and a complex and a difficult science. Indeed a composite of many sciences, but which in its application is an art,—an art separate and detached from the science, but without which the science cannot manifest itself. Furthermore, Surgery is not an exact nor mathematical science, but a liberal art, like the fine arts in which the personality of the individual, who practices it, enters so largely that his interpretations may modify its concepts and, at times, ride over its rules and conventions.

For this reason, we find in Surgery, as in all the liberal arts and sciences, great variations in the quality, concepts, and craftsmanship of its practitioners. Standing at the top are the great masters, whose artistry is revealed more often in the difficult and dangerous operations of the neck, brain, abdomen, and chest, and still, in a more visible form, in the plastic surgery of the face, for the correction of disfiguring deformities, and, in the limbs, for the restoration of motion in stiff ankylosed joints.

In many of these operations, the Surgeon, often works in a small but dangerous area, with all the patience and dexterousness and minuteness of detail that would honour a miniaturist, a Meissonier or a Florentine cameo cutter. In other and larger fields, the Surgeon maps out his outlines more quickly but attains his objective with a precision, a bloodless, stainless, painless method, and an immaculate cleanliness, that is unknown in any other art. "To watch such an artist is to realize that only infinite practice, the most solemn devotion to the details of craftsmanship and a profound sense of spiritual dedication to a higher purpose, are capable of creating and so ennobling the work of man and of man's hand[10]."

At the bottom of the ladder, there are others who have enough enterprise and daring, but whose conception of the art is much like that of certain modern impressionists who, incapable of patient, minute detail, sacrifice accuracy and security to speed. Like some of these impressionists, they are foggy delineators. They cover the field with color and plenty of it. Then they scramble through, they slur details and insult the tissues by their coarse handling. The work of these artists like those of their fellow impressionists in painting and sculpture, will not stand close inspection, and often, it is only with the help of the imagination that one can visualize the idea that the artist intends to convey. Fortunately, this style of "slap and dash" operating is fast disappearing and we scarcely see this type in our contemporary clinics. Between these extremes,—the miniaturist and the impressionist, of the real artist and the amateur,—there are many gradations of fineness and coarseness, varying from a caricature, a parody of the art, to its noblest and finest manifestation. The difference, and a capital one, between the effects of these technical experiences is that in the fine arts the artist can always replace his

[10] Sir Berkeley Moynihan: "Before and After the Operation": Brit. Med. Jnl., Oct. 16, 1926.

material when he spoils it,—the absurdities and crudities of the amateur only spoil a good canvas or a good marble, and may end in ridicule or comedy, while the crudities and eccentricities of the amateur surgeon not only spoil the flesh, but are likely to end in tragedy. To distinguish between the amateur and the professional is not always an easy matter, especially in surgery, since the product of the Surgeon's art is not usually exposed to the view of a discriminating public, and again in the privacy of a surgical operation, it is easy at times to pass a counterfeit for the real coin.

Fortunately, the immense expansion of surgery in the last quarter century and the great swing of the pendulum from medical to surgical therapeutics, has led surgical patients, or rather compelled them for their own security, to concentrate in hospitals, where the operations of the surgeon are exposed to the view of competent critics. It is to protect the public from the abuses of the unqualified but enterprising practitioners, who often masquerade as Surgeons, that the American College of Surgeons was organized 14 years ago. While the profession fully recognizes that there is no such thing as standardizing the art of surgery, no more than any other liberal art,—if we mean by this that all of its performers are to be brought to a uniform level of competence, of proficiency,—it is none the less feasible to establish certain minimum standards or requirements in education, special knowledge, experience and ethics, which will serve to discriminate between the professional surgeon and the amateur or fake; and that is what the title "Fellow of the American College of Surgeons" is intended to convey to the public. That is also what our national, regional and local associations of Surgeons, are doing in this country, by admitting to their membership only those whose qualifications in surgery justify their fellowship.

IV.

Surgery, A Highly Differentiated Specialty of Medicine. The Division of Labor and the Multiplication of the Surgical Specialties. No one can specialize in any division of Surgery without a preliminary, thorough, general surgical training. Surgery gradually becoming a Federation of Specialties. Future of the General Surgeon.

The prodigious activity and productiveness of the sciences allied to medicine,—biology, physics and chemistry,—are now adding such a vast store of knowledge to the common stock of medicine and surgery that it has become a practical impossibility for any one mind to keep abreast of the progress of medicine in its totality; not even in one of its generic divisions,—medicine or surgery. Hence the growing tendency to specialization which is the outstanding feature of contemporary and medical organization. The division of labor which has imposed itself as an unavoidable necessity upon the practitioners of medicine and surgery, has its advantages and disadvantages, its legitimate and its illegitimate claims to recognition; but this phase of the question does not concern us at present. Suffice it that the specialties have come to stay, and that we must face the situation as we find it,—as a reality, which affects not only the present, but the future destinies of our profession.

In Surgery and Medicine, the need for this division of labor has been long recognized, and its value in concentrating the attention and energies of the individual to restricted fields of activity instead of diluting them in the futile effort to encompass a vast and limitless domain, cannot be denied. It is evident that by concentration in a circumscribed field, what is lost in surface is gained in depth. For many years, even centuries, certain specialties have existed and now flourish and lead a practically autonomic existence. Such are the specialties of the eye, obstetrics, and dentistry; but since Lister gave Surgery a free and safe passport to new and vast anatomical territories, a number of distinctly specialized groups of surgeons have developed, whose activities are largely, if not exclusively, confined to limited regions of the body. The specialties have prodigiously multiplied in the last quarter century and particularly since the World War, when the need of specialists became acutely apparent in the Army for the treatment of the many regional injuries that required the skill of experts to cope with them efficiently. In consequence, there is now no region of the body that is not claimed as the special province of some particular group of surgeons; thus, in the head, we find a number of subdivisions: the oculist, the otologist, the rhinologist, laryngologist, the oral, the plastic and the neurologic surgeon; in the chest, the thoracic surgeon, in the abdomen and in the pelvis, the abdominal surgeon, and the gynecologist; and a little lower down, the urologist and the proctologist. In the extremities, even the orthopedists, the traditional mechanicians of Surgery, have virtually abandoned the ingenious devices of the machine shop to adopt the speedier methods of the operating room for the correction of the deformities in bones and joints; and, what is more, to claim authority over the treatment of fractures and dislocations, which, since the days of Hippocrates, have been assigned to the general Surgeon as his undisputed province.

And again, there is the modern professional anaesthetist, an expert specialist in the administration of the new anaesthetic gases or combinations of the old and the new, which the progress of chemistry and physics has contributed to contemporary surgery with immeasurable benefit to the patient and to the operator.

These, however, require a complex apparatus and an expert for their proper administration; but the speed, comfort and security that the present methods of anaesthesia have given to surgery, are as much of an improvement on the old, simple, but primitive methods with chloroform and ether, as the luxury of a 20th century Pullman is over the old-fashioned stage coach.

But if the body is to be partitioned into definite, anatomical areas which are to be assigned to separate groups of surgical practitioners, we must realize that the time may come when surgery will become a vast federation of specialties, which, with the progress of science, may again be subdivided into still narrower specialties covering the surgery of the individual organs, and perhaps parts of organs. In the meantime, what is to become of the so-called general surgeon? Is he, like the general practitioner of medicine, destined to be absorbed by the specialties and thereafter lose his identity to disappear from the grand panorama of medicine? We cannot stop to discuss this interesting problem, since it would afford material for speculation as endless, as it would be profitless. That the general surgeons are not dead yet, and that their disappearance is quite remote, is attested by the fact that the majority of the specialists to whom we have referred, with relatively few exceptions in the narrower specialties of the eye, ear, nose and throat, still continue to extend their excursions to other regions beyond their own, as is the case with many modern gynecologists who practice their specialty on man as well as woman, and stretch their pastures from the pelvic brim to the dome of the diaphragm. The acute emergencies of surgery, and all the accidents of everyday occurrence that call on the surgeon for relief, all the rural surgery that cannot wait for transportation; all the diversified surgery of industrial life, which needs an all-round surgeon, well prepared to bring immediate relief to any damaged part of the body,—give ample occupation now, and will continue for an indefinite future, to make room for the polyvalent or so-called general surgeon.

But I am wandering far away from the starting point and from my purpose, which is to say that, no matter to what specialties a surgeon may choose to dedicate himself, no matter whether he may select the abdomen, the chest, the brain, the extremities, or any other region that he may prefer, for the exercise of his particular talents, he will have to be a surgeon—submit to a special preparation, a definite apprenticeship and experience in the art, as a whole, as it is applied to the human anatomy in all its parts, before he may feel justified in engaging and confining himself to any special region of the body or division of surgery. In addition, he must possess certain mental qualifications and physical qualities which are distinctive of surgery and of surgeons, no matter in what direction the surgeon's individual tastes and inclinations may lead him.

For in surgery, as in the fine arts,—painting, for example, there are certain fundamental principles, rules and technics which must be acquired by all who would profess to be professional artists and which are common to the art, whether it display itself in one or another of its numerous and diversified specializations, —such as portraiture, landscaping, marine, etc., or any subject for which the artist may have special ability or aptitude.

NOTE: When the question of specialization in medicine was beginning to loom up in the first half of the last century, the only question that was being seriously considered was the detachment of specialists from the general practice of medicine. Surgery, as an exclusive specialty, apart from general practice, was unknown in America, until comparatively recent years. The greatest American Surgeons, before, and long after the Listerian revolution, were all general practitioners. When Dr. Samuel D. Gross, the "Nestor of American Surgery," vigorously protested in 1876 against specialism in general, and particularly in surgery, as an independent or separate practice, he had in mind the detachment of the specialties, and particularly of surgery from the general practice of medicine, rather than the tendency, now so manifest, to create new surgical specialties out of the body of surgery itself. In his admirable review of the "History of American Medical Literature" (1776-1876; Philada. 1876) he closes his argument against specialism by quoting an episode related by Dr. Barnes, the celebrated Obstetrician of London, which, as Dr. Gross says, "admirably illustrated the spirit of the age (1876)." "I have recently been honored," said Dr. Barnes, "by a visit from a lady of typical modern intelligence who consulted me about a fibroid tumor of the uterus; and, lest I should stray beyond my business, she was careful to tell me that Dr. Brown-Sequard had charge of her nervous system, that Dr. Williams attended to her lungs, that her abdominal organs were entrusted to Sir William Gull, that Spencer Wells looked after her rectum, and that Dr. Walshe had her heart. If some adventurous doctor should determine to have a new specialty and open an institution for the treatment of diseases of the umbilicus, the only region which is unappropriated, I think I could promise more than one patient." What is more interesting is Dr. Gross' final remark, saying "Dr. Barnes is in error, the vermiform appendix has no specialist." Gross was then thinking that he was adding another and more pointed shaft to Dr. Barnes' fling of ridicule when he made that remark; but that was in 1876,—and when we think of the appendix in the light of the tremendous role it has played in the surgery of the last 50 years, we can realize how utterly Dr. Gross' well-poised shaft falls short of the mark in our day. What was a jest in 1876, becomes a dull gesture in 1926. And so it is with the fallacy of human judgment. What is folly in one age becomes wisdom in the next, and vice versa. *Tempora mutantur et nos mutamur in illis.*

V.

The scientific postgraduate preparation for surgery adequate 30 years ago, wholly inadequate now. Special laboratory training in the fundamental branches. Surgical applied Anatomy, Physiology, Pathology and the Subsidiary Laboratories; Radiologic Anatomy.

There is much that could be said in regard to the scientific preparation that the changed

conditions of surgery have imposed upon those who would pursue its arduous path as a professional vocation.

To attempt an adequate discussion of these scientific requirements, would plunge us at once into a mass of technical details which could only interest an audience of medical educators, and that would be irrelevant, even if time permitted, to the wholly untechnical character of this address. We must bear in mind, however, that the preparation which was amply sufficient a little over 30 years ago, is now inadequate, when we consider that the conscientious surgeon must stand not only as an interpreter, but as an arbiter, between the patient and the numerous laboratories, that the progress of science is rapidly adding to his suite, as aids in perfecting and advancing his diagnostic and curative mission.

The surgical scholar must revise and supplement the general knowledge of the fundamental branches, which he has acquired in the undergraduate schools, by intensive study and laboratory exercises, so that he may be able to apply the data of these sciences to the highly differentiated needs of the surgeon.

Anatomy, physiology and pathology, in their many and diversified applications, constitute the tripod upon which the future surgeon must rest the scientific doctrine of his faith, and learn the possibilities and limitations, as well as the applications of his craft.

Of these, anatomy must take precedence, because without anatomy the other studies are incomprehensible and valueless. By anatomy, we mean human anatomy, not only that knowledge of the material framework and construction of the human body,—which can only be acquired in all its complexities and detail by prolonged study and systematic dissection of the human cadaver,—but that anatomy which is applied to the problems of surgery; such as Bigelow so brilliantly applied to devise his principles and methods for the reduction of dislocations of the hip joints; and Cushing, to the anatomy of the skull, by which he found the routes to the pituitary body and to the base of the brain. The anatomy of the lower animals is indeed helpful for research, but the human body is the only model that the surgeon can follow if he is to apply his craft with certainty and safety. Anatomy in its applications to surgery is as necessary to the Surgeon as a chart to the navigator, and the surgeon can no more be trusted to find his way in a tangle of vital organs, blood vessels, muscles and nerves,—which make up the flesh,—and conduct his operations to a successful issue,—than a pilot could be trusted to guide a great ship, loaded with human freight, to a safe berth in a dangerous harbor, without an intimate knowledge of its tortuous channels and its treacherous shoals. Without practical experience in anatomy, which teaches the structures and organization of the human machine,—or without physiology, which tells us the forces and functions that run the machine when *in order*, and without pathology, which tells us how the machine runs *in disorder*, —the Surgeon could no more be trusted to operate upon his patients, than an engineer to run a 20th century locomotive which he had never seen,—only knowing its construction and operation by what he had read in books. Indeed we can safely say of anatomy, that it is one of those things that cannot be taught in correspondence schools.

But apart from the knowledge of anatomy and pathology, that the student acquires from the dead human body through his naked senses, he must aid these with the microscope, if he is to cultivate a real intimacy with the tissues that he is to work upon; for, the surgeon who only knows gross anatomy, physiology and pathology, as these are revealed to the naked eye, is like the child who can only read the headlines of a billboard and cannot decipher the smaller type. And what is more, he must acquire a new anatomy which was unknown to his forbears, and that is the *anatomy, the physiology*, the *pathology* are revealed simultaneously, in the living body when illuminated and made translucent by the rays of the magic lamp that the immortal Roentgen discovered just 30 years ago, and which endowed medicine and particularly surgery with the uncanny gift of second sight. For we must remember that the anatomy, revealed by the X-rays is very different, as we see it in the living, from the anatomy that is learned only from the bodies of the dead. In fact, most of the anatomy learned by dissection, at least that of the internal organs of the body, has had to be revised in the light of radiologic experience, so that to give the X-ray film or the fluoroscopic image, its proper clinical valuation, the student must supplement his cadaveric dissections by a course of X-ray anatomy under a competent radiologist. Let us not forget, that the X-rays would be valueless and deprived of all their diagnostic significance in medicine and surgery if the hidden secrets which they disclose, were revealed to other than anatomically trained eyes. How meaningless the clearest, the most perfect radiograph is to the uneducated eye of the layman. How blind to its revelations, is the eye that is untutored in anatomy!

The same need of intensive preparation by personal experience in the dissecting room, in the X-ray laboratory, applies to the student's personal work in the other ancillary laboratories of physiology and pathology, including those of clinical microscopy, pathological histology, bacteriology, serology and biochemistry. While not pretending that the surgeon should be an expert in the methods and the technics of these laboratories, he should be sufficiently acquainted with these, by his own personal contact and exper-

ience, to be able to give a just valuation to the reports issued by these laboratories, especially when they are at variance with his own findings in the clinic, at the bedside, or in the operating room.

(To be continued)

ABDOMINAL PALPATION IN THE VERTICAL POSITION

BY FRANK E. WHEATLEY, M.D., AND SAMUEL W. ELLSWORTH, M.D.

As roentgenologists, it is frequently our fortune to have the problem of visualizing by x-ray, pathology suspected by the clinician after examination by ordinary methods of physical diagnosis, including history. In many cases, one is surprised by the accuracy with which pathology is described by the clinician and verified by the x-ray examination. At other times, however, conditions are discovered where it seems at least unfortunate that earlier diagnosis could not have been made and it is to emphasize the importance of more care in palpation of the abdomen that this article is written.

Conversation with various medical students reveals that in their training in school or in clinics, no special emphasis is placed on the art of palpation except in the usual recumbent position on the bed or examining table. This was not always the case, as reference to some of the older books on Physical Diagnosis written before the advent of our modern laboratory methods of diagnosis, shows that more definite instructions in palpation in various positions were given then than are given today.

The matter has been drawn forcibly to our attention recently by two cases of gastric carcinoma, in neither of which was the diagnosis made prior to x-ray study. During the fluoroscopic examination in the upright position, tumor masses were palpable. We believe that, in these cases at least, and probably in a large number of other cases, had the clinician employed careful palpation in the vertical position, he could have detected a tumor much earlier and could have had his diagnosis verified by x-ray in time to make the patient a fair surgical risk.

In the study of statistics of malignancy, it is revealed that carcinoma of the stomach comprises approximately 30% of all cases and that 60% of these have tumor masses sufficiently large for palpation when referred to the surgeon. It has recently been stated by an authority that only 10% of the cases of carcinoma referred to him for operation were operable because of the advanced condition of the disease. With these figures in mind it becomes apparent that earlier diagnosis is at least a possibility.

It is recognized that x-ray examination of the stomach is probably the most definite method at our disposal for diagnosis of malignancy and it is unfortunate that it is not freely available to physicians in the more rural districts.

However, if careful palpation is done with the patient in the vertical position in all cases of unexplained indigestion, it seems to us quite likely that we should be able to send to the surgeon considerably more than 10% of operable cases.

The diagnosis of carcinoma of the stomach usually results in a great degree of pessimism as to prognosis on the part of physicians and we do not wish to make any statement that would change the realization that it is usually a fatal disease. However, our pessimism is based largely on the nature of cases in which the diagnosis was made relatively late. Contrary to our usual belief, it takes considerable time before metastases spread to the adjacent gland structures or to the liver. The reason for our belief in early metastases is the fact that the disease is usually "silent" until well advanced. Therefore, one of the major hopes for early diagnosis is by the detection of the tumor mass or by x-ray examination.

Another point that is ordinarily neglected by the examining physician in attempting to palpate tumor masses, especially in the stomach, is his failure to ascertain the degree of distention of the stomach. Some cases with tumor masses have been very difficult to palpate until the stomach was distended by liquid. We would suggest the desirability of examining every patient in which malignancy of the stomach is suspected, in the usual posture and then in the vertical position with the stomach relatively empty. Then repeat this process after the patient has drunk at least two glasses of water. With the resulting distention of the stomach, one is more likely to palpate a tumor, especially on the anterior wall, and moreover, the changed conditions with a full stomach would aid in the differential diagnosis of a tumor felt with the stomach empty.

Another condition in which palpation in the vertical position should be routinely used is that of suspected gall bladder disease. With the advent of the dye test for visualization of the gall-bladder by x-ray, we have learned a great deal about the variation in the position of the gall-bladder in various individuals and in various postures. We have recently fluoroscoped a dye-filled gall-bladder with the patient supine, i. e., in the orthodox position for gall-bladder examination, and found this organ was entirely above the costal margin and not palpable. With this same patient standing, we were able not only to palpate the gall-bladder, but to express its contents, so that had there been a calculus of any considerable size present, we believe we could

have become suspicious of its presence through palpation alone. It is a strange fact that many clinicians routinely use the vertical position for palpation of the spleen but do not consider its use for the stomach and gall-bladder. Of course, it is even more valuable in the latter cases due to their mobility than it is in palpation of an organ like the spleen which is less mobile.

We presume the reason for the failure to utilize gravity in bringing the stomach and gall-bladder to palpable locations is partly due to the descriptions of the position of these organs in the old textbooks of anatomy. The later editions have modified their conceptions of the location of these organs since the advent of x-ray but it has usually been inserted more as a footnote in the text than as an actual description. Moreover, the student when working in the dissecting room with preserved cadavers, visualizes the described anatomical position of the viscera and subconsciously carries the erroneous idea to living patients.

We have recently examined 100 girls taking a course in a school of physical training—girls of unusually excellent physique—and found that the normal position of the greater curvature of the stomach is below the umbilicus when the subject is standing. That being true, it is certain that the average ailing individual has a much greater degree of ptosis, and that the stomach and gall-bladder when the patient is standing are in positions that will allow palpation of these organs.

Palpation in the vertical position is easily accomplished in most patients if care is taken to follow the proper technique. The patient stands against the wall or a door and the physician sets himself on a stool or low chair in front of him. Particular care should be taken to impress upon the patient the necessity of relaxation and it has been noted that irrelevant conversation will oftentimes bring this about even in nervous patients. Care should be taken to make no abrupt motions and pressure should be exerted by first touching the patient and then gradually increasing the force to the necessary degree. It is recognized that this method has the limitations of any method of palpation and is not applicable to very muscular and stout individuals.

CONCLUSIONS

1. Palpation in the vertical position is too often neglected.
2. In the average ailing individual, the stomach and gall bladder fall far below the usually described position.
3. Palpation of the stomach empty and filled gives information not elicited with the usual technic of palpation.
4. It is likely that earlier diagnosis of carcinoma of the stomach could be made if this method were routinely employed.

TRANSVERSE MYELITIS COMPLICATING PREGNANCY AND LABOR

Report of a Case*

BY HERSCHEL HEINZ, M.D.

THE literature on the subject of spinal cord diseases complicating pregnancy is scarce and this is particularly true concerning labor and pregnancy in the presence of transverse myelitis of whatever origin. For that reason the writer has deemed it advisable to offer a report of such a case.

That a normal painless labor may occur in the presence of a complete transection of the cord is attested by the few cases already on record. Good[1], in 1924, reported a case from the obstetrical service of the Boston City Hospital. His patient had a traumatic transection of the cord with a subsequent normal and painless labor. Experiments conducted by Good on guinea pigs proved that caesarean section could be performed in the presence of a completely severed cord with perfectly normal healing of the uterine incision and the abdominal wall. Good's article contains all the available references on the subject up to the time his article was published.

Gueissaz[2], in 1925, reported a case of transverse myelitis in which he performed caesarean section. He considered the myelitis to be due to toxemia and decided upon delivery as a method of combating the toxemia. In his case the total paralysis of the legs developed suddenly in the seventh month of the woman's twelfth pregnancy. Caesarean section was performed, and a male baby delivered which lived three hours. The uterine and abdominal incision healed by first intention and the paralysis began to subside so that at the end of seven weeks the patient was able to walk alone. In five analogous cases of pregnancy transverse myelitis with a sudden onset, four of the women died. In seven with a gradual onset, all survived. Gueissaz concluded that in those cases of transverse myelitis of sudden onset in pregnancy, the prognosis is poor for the mother but that where there was a gradual invasion the converse is true.

An extensive survey of the literature reveals no further analogous cases—the most nearly comparable that of Hamblen[3], whose patient was a tabetic with a labor not more difficult or prolonged than it otherwise would have been.

The case herein presented was that of a Portuguese housewife aged 20. She was admitted to the hospital on December 19, 1925 with a complaint of paralysis of the legs.

The patient was about 7½ months pregnant and

*From the Obstetrical Service, St. Luke's Hospital, New Bedford, Mass.

had had a perfectly normal course until six weeks before entry. At that time there appeared (without prodomes) numbness and tingling in both feet, rapidly progressing to complete loss of motility in both lower extremities and absence of sensation. Two weeks before entry her feet began to swell. Several days later she became incontinent. There was at the onset, no pain, fever or general reaction of any kind. The present illness was otherwise negative.

The past history was entirely negative except for the usual childhood diseases details of which the patient was unable to recall. The marital history was similarly without significance. The patient had had two normal full term pregnancies, no miscarriages and no premature labors. The family history was essentially negative.

On physical examination the patient was found to be well developed and nourished, mentally clear and coöperative. The skin, head, eyes, ears, nose, mouth and throat were negative. The neck showed no glands or stiffness; the chest was normal; the lungs resonant and free from rales. The heart was normal in size and shape. The rate and rhythm were normal. There was a soft systolic murmur at the apex. The uterus was 2½ fingers above the umbilicus. The vertex presented. The head was floating. The back to the left. The fetal heart rate 140 in the L.L.Q.

Neurologically she presented a paralysis of both lower extremities and anesthesia to all forms of sensibility below a line encircling the chest on a level with the seventh dorsal spine. Ankle jerks and knee jerks were absent but tapping of the quadriceps tendon appeared to cause a contraction of that muscle without extension of the leg. The pupils were regular, concentric but unequal (L>R). This inequality developed after admission to the hospital. Both pupils reacted to light and distance—the left more sharply. Laboratory data. Urine—Sp.Gr. 1.026, no albumin or sugar. Sediment showed a few W.B.C. and epithelial cells. Hgb. 85%. R.B.C. 4,600,000 W.B.C. 9,800 Polys. 69%. Lymphocytes 25%. Large mononuclears 6%. Blood Wassermann 12-20-25 negative. 2-3-26 negative. Spinal Fluid 11 cells per cu. m. m. Globulin slightly positive. Spinal Fluid Wassermann negative.

A diagnosis of acute transverse myelitis of unknown origin was made by the consulting neurologist after hemorrhage into the cord, syringo-myelia, lues and Landry's paralysis were considered and were ruled out.

The patient's condition remained unchanged after several weeks stay in the hospital. On January 28, 1926, the left leg was spastic, the right flaccid with no change in the area of anaesthesia. On February 6, about 13 weeks after the onset of the paralysis, contractions of the uterus began without pain and within four hours the patient had a painless precipitate delivery of a normal male baby weighing 6 pounds 7½ ounces. The child breathed spontaneously, had good color and a lusty cry. The perineum remained intact and there was very little if any bleeding. The placenta and membranes came away intact. The uterus contracted well and remained firm and small.

Involution proceeded normally and the patient's condition remained unchanged until about five weeks after delivery. She then began to have an irritating cough. She felt cold and developed chills. Several large ugly bed sores failed to respond to treatment and the patient went rapidly downhill.

On the 4th of April 107 days after entry and 2 months after delivery the patient passed into coma and expired. The child is still living and well.

Unfortunately autopsy permission could not be obtained in this case.

CONCLUSION

The case presented affords further evidence of the fact that:

1. A normal painless labor may occur in the presence of spinal cord injury or disease—even complete in extent.
2. The sympathetic nervous system and not the spinal cord controls uterine contraction.
3. Delivery in such cases is not accompanied by hemorrhage and involution proceeds normally.

REFERENCES

1 Good, Frederick L.: "Pregnancy and Labor Complicated by Diseases and Injuries of the Spinal Cord." J. A. M. A., 83:416-418, Aug. 9, 1924.
2 Gueissaz: Gynécologie et Obstétrique, Paris. 11:446, June, 1925.
3 Hamblen, R. M.: Am. J. of Obst. and Gyn., 9:102-103, Jan., 1925.

NEW ENGLAND HOSPITAL ASSOCIATION

Sixth Annual Meeting, May 5 and 6, 1927

THE Sixth Annual Meeting of the New England Hospital Association was held on May 5-6, 1927, at the Medical Library, Boston, Massachusetts.

The first session was convened at 10:20 a. m., May 5, by Dr. Harold W. Hersey, President.

The chairman called for the report of the fifth annual meeting, which was read by the Secretary, Dr. Leslie H. Wright, and was by vote accepted.

SECRETARY'S REPORT

MINUTES OF FIFTH ANNUAL MEETING—NEW ENGLAND HOSPITAL ASSOCIATION

MAY 20 AND 21, 1926

The fifth annual meeting of the New England Hospital Association was held May 20th and 21st, 1926, at the Hartford Hospital, Hartford, Conn. The meeting was called to order by the President, Dr. George A. MacIver, at 10.35 A. M., May 20th. The records of the previous meeting were read by the Secretary, together with the report of the Treasurer. Upon motion made and seconded, it was

Voted—That the Secretary-Treasurer's report be accepted.

Dr. Lewis Baker, Dr. Norman Baker, and Mr. E. E. Stackpole, members of the Auditing Committee, reported that the books had been audited as of May 17, 1926, and found correct.

The report of the Committee on Relations with Insurance Companies was read and accepted.

A Memorandum on Geographical Section Organization from the American Hospital Association was read by the Secretary, and a Committee consisting of Dr. Sexton, Dr. Richardson and Mr. Mays appointed to consider this communication and report at the next annual meeting of the Association. The question of life membership in the New England

Hospital Association was also to be taken under consideration by this Committee.

The following nominating committee was named by the President:—Dr. Sexton, Dr. Richardson, and Mr. Gardiner.

Discussion of various subjects followed the business meeting.

Dr. C. Macfie Campbell, Boston Psychopathic Hospital, Boston, gave a talk on "Out-Patient Psychiatric Department." Discussion of this paper was opened by Dr. Sexton of Hartford.

Miss Fanny Packard of the Cambridge Hospital, Cambridge, Mass., read a paper on "Organization and Operation of Social Service Departments in Moderate Sized Hospitals." Discussed by Miss Ora M. Lewis, Mass. General Hospital, Boston.

Dr. T. E. Reeks, New Britain General Hospital, New Britain, Conn., read a paper on "Hospital Courtesy." A paper on "Purchase and Conservation of Supplies" was read by James R. Mays, Superintendent, Homoeopathic Hospital, Providence, R. I. Discussion was opened by Mr. E. E. Stackpole of Boston, Mass.

Dr. W. C. Rappleye gave a talk on "The Commission on Medical Education," which was discussed by Dr. Hersey.

The last paper on the program was "What Does the Public Demand of the Nursing Profession," by B. Henry Mason, Asst. Supt., Peter Bent Brigham Hospital, Boston. Discussion was read by Miss Effie J. Taylor of the Yale School of Nursing. The report by the Nominating Committee was submitted, and the following members elected for the ensuing year:—

President, Dr. Harold W. Hersey, Bridgeport Hosp., Bridgeport, Conn.

Vice-President, Dr. Norman C. Baker, Mass. General Hosp., Boston.

Secretary-Treasurer, Dr. L. H. Wright, Peter Bent Brigham Hosp., Boston.

Trustee, Dr. J. B. Howland, Peter Bent Brigham Hosp., Boston.

A vote of thanks was extended by the members to Dr. L. A. Sexton for his care and hospitality at our meeting.

During the year, an attempt has been made to secure additional members for our organization. To date, we have 159 paid-up members, 26 of whom have been accepted during the past year. 7 members have resigned during the year, either because they have moved to another state and were no longer eligible, or because they were no longer engaged in active hospital work.

The Treasurer's report for the year 1926-27 was read by Dr. Wright, and was by vote accepted.

TREASURER'S REPORT

For the Year 1926-1927

Balance on hand May 18, 1926	$1276.48	
Receipts		
Membership dues	939.00	
Bank Interest	11.60	
Advertisements	60.00	
Total Receipts	$2287.08	$2287.08
Disbursements		
American Hospital Association	$ 474.00	
Stationery, Printing and Postage	66.22	
Stenographer	89.50	
Expenses of Secretary attending 1926 meeting	13.40	
Publishing 1925 Transactions	208.00	
Publishing 1926 Transactions	325.74	
Telegrams	.83	
Refunds on dues	4.00	
	$1181.69	$1181.69
Balance May 1, 1927	$1105.39	

I certify that I have examined the account of Dr. Leslie H. Wright, Treasurer, New England Hospital Association, for the year 1926-27, and find it correct. The balance of cash on hand May 1st, 1927, amounting to $1105.39, has been verified with statement submitted by the New England Trust Company.

E. E. STACKPOLE,
Chairman, Auditing Committee.

We certify that we have examined the accounts of Leslie H. Wright, Treasurer of the New England Hospital Association, as of May 1st, 1927, and find all funds properly accounted for and a remaining balance of $1105.39.

B. HENRY MASON,
E. E. STACKPOLE,
Auditing Committee.

The President appointed a committee to nominate officers for the ensuing year.

Mr. E. E. Stackpole reported for the auditing committee that the books had been audited as of May 1, 1927, and found correct.

This report was by vote accepted.

The chair called for any new business to be brought before the meeting, and the question of legislation directly or indirectly affecting hospitals was presented by Dr. Wright, who said:

"In this State, and I presume in other States in New England, there is a service called 'Legislative Reporting Service,' which reports to subscribers proposed bills, with the dates of hearings, and I suggest that the Hospital Association assume this as one of their duties and subscribe for this service; and that the President appoint a committee in each State to review these bills as sent out, and notify each superintendent of anything of interest, so that they may be represented at the hearing. I don't know the exact cost of this service, but I am sure we can afford it.

A MEMBER: How much of a balance did we have?

A. Somewhat over $1100. I don't think the expense would be over $150. In this State, every year there is a calendar issued from the State House, showing the bills by their titles and the dates of hearings. The hearings are fixed from time to time, and sometimes adjourned. It should be a very small expense to have some one whose duty it is to examine that calendar and investigate any bills which seem to have a bearing on hospital problems. The bills can be obtained at the State House on application. It would seem as though, if this reporting system exists in other states, it would be very little trouble to subscribe for the calendar, receive it regularly, and follow it through, and

then obtain copies of the bills simply by going to the State House for them.

A MEMBER: What is the function of this reporting bureau,—to select bills that interest the subscriber?

DR. WRIGHT: Yes; to report the titles of all bills, and send details of those they think we are interested in.

MR. BORDEN: Of course the hospital field covers a very large area, and it would seem to me that a hospital man could sense the possibility of certain bills affecting hospitals quite as readily and efficiently as a reporting bureau. It seems to me it might be very well worth while for this Association to pay some of its members as agents to keep track of legislation, instead of hiring a reporting bureau to do it.

DR. HOWLAND: I should like to say a word, having had some experience. At the present time the Massachusetts General, The Peter Bent Brigham, and the Homeopathic Hospital employ such service; and I might cite one example of its usefulness: In Massachusetts the Supreme Court has decided more than once that a charitable institution cannot be sued for so-called malpractice suits; that a fund given to a hospital is a charity fund and cannot be used to settle such suits. That is a very important decision, and has not held in other states. The only way to overcome this is by direct legislation, overruling the decisions of the Supreme Court, and such an attempt has been tried several years, without success. Without this service, we might not know of such proposed legislation, and therefore not appear to object to it; and if the legislature finds that no one opposes a bill, they are very likely to report it and pass it. In this instance the Massachusetts General, the Peter Bent Brigham, and the Homeopathic Hospital employed counsel to go before the legislative committee and object to such bills, and were successful in warding them off. This illustrates the importance to the hospitals of in some way keeping track of such bills. It seems as if this were a matter that our Association could very well handle for us, and that we should feel that we were getting more benefit from it than we have in the past.

DR. RICHARDSON: I should like to ask, if this is to be done through a reporting agency, if $150 would cover the cost in all the States, or only in Massachusetts.

DR. WRIGHT: That, I think, would cover the cost in all the States.

DR. RICHARDSON: I make that point because of course the other States have no particular interest in what happens in the Massachusetts legislature.

DR. WRIGHT: My suggestion was to appoint a committee in each State to review the reports in their respective legislatures.

THE CHAIR: Dr. Sexton, you are more or less custodian of hospital legislation in Connecticut; what is your opinion on this question?

DR. SEXTON: I am not the custodian of the Connecticut Legislature. But I have been chairman of the legislative committee of the Connecticut Hospital Association since its organization a number of years ago. That committee is supposed to keep informed on prospective legislation in Connecticut. The state commissioner of health watches those things very closely, and sends to the members of our committee a copy of all bills that have any bearing whatever on hospitals, one way or the other, with the date of hearings on those bills. There has never been any charge for this. I presume he thinks that is part of his contribution to the health and the hospitals of the State. When there are hearings on bills of interest to the hospitals, our committee appears. Our legislature meets on alternate years. This year we have had occasion to appear but once or twice before the legislature. At the session of the legislature two years ago we had several hundred bills on which we had to appear. The only bill to come up this year we introduced ourselves,—a bill compelling all hospitals in the State of Connecticut not receiving State aid to be registered with the department of health, so that they may be inspected and licensed and controlled by the state department of health. We thought it was worth while to introduce and sponsor a bill to have the hospitals not receiving State aid inspected annually and licensed by the State Department of Health. Numerous little private homes have opened up as hospitals throughout the State; and the layman who is in need of medical care, particularly if he is in need of immediate care, and sees a sign of "Hospital" over a door, is likely to assume that he can go there and have proper care, which is not nearly always the case in these little institutions. Many of them are operating illegally. For that reason we think they ought to be inspected and licensed. However, we receive all these notices without charge.

DR. HOWLAND: I should like to ask Dr. Sexton if it would not have been an advantage if, by some arrangement which this Association paid for, when such bills were reported, all superintendents of hospitals in his State were notified; so that there might have been a considerable representation before the legislature, instead of just the legislative committee of the Hospital Association? That was Dr. Wright's proposal.

DR. SEXTON: When it has seemed necessary to the legislative committee, that has been done. If there was a bill pending that concerned very vitally all hospitals throughout the State, we have asked the respective superintendents of the twenty-six hospitals to appear; but for matters that could just as well be attended to by the committee we have done it, without asking them

to come to Hartford. However, on numerous occasions it has, in our opinion, been necessary to have a representative body present.

THE CHAIR: If there is no further discussion, I will ask Dr. Wright to state the motion.

DR. WRIGHT: I move that the New England Hospital Association assume the duty of subscribing to the Legislative Reporting Service, which shall report all bills to a committee to be appointed by the President.

DR. HERSEY: Is that so worded that it covers the legislative bills in all States?

DR. WRIGHT: I meant that it should cover all the New England States.

DR. HOWLAND: I don't know but that it would be desirable to limit the amount to be expended for this service.

MR. BORDEN: I think it is very important that some one be appointed to supervise this service. Dr. Wright, I understood, anticipates that this service will cost $150. On what do you base that estimate?

DR. WRIGHT: That is a very rough estimate, based on the amount we had to pay. It cost us about $43. That is a third share.

THE CHAIR: If the motion were worded that the trustees be requested to look into the service and determine what was desirable, would that motion suit you, Mr. Borden?

MR. BORDEN: Yes, I think so. If $43 was the cost of the service rendered to three institutions in this State, it would cost $125 in Massachusetts, and in six states, six times that.

THE CHAIR: Would you consider that as an amendment to your motion, Dr. Wright,—that the trustees be asked to look into the service, and empowered to adopt it if they feel that it can be taken care of by the Hospital Association?

MR. BORDEN: I think the trustees should be authorized to investigate the matter, and that the Hospital Associations in the different States should be consulted. Instead of planning to adopt this service, leave it to the trustees to determine what method should be adopted for giving this information to the hospitals. I appreciate that it is very desirable information for the hospitals to have; they should keep in touch with the possibility of legislation affecting their interests, and some means should be provided through this Association to know what is going on; but the matter requires investigation as to the most economical means for its accomplishment. If it is left with the governing board, they can investigate and say what should be done.

Dr. Wright agreed to this modification of his motion, and as thus amended the motion was carried with no dissenting opinion.

No further business was presented.

Mr. Richard P. Borden, Trustee of the American Hospital Association, then addressed the meeting on the subject, *The Workmen's Compensation Act.*

MR. BORDEN: May I say a word as representing the American Hospital Association? It is the desire of the American Hospital Association to have a representative attend all local meetings where hospital problems are discussed, because a vast amount of information can be collected in that way and brought to the central office. But our executive secretary during the last few years has been too busy, and the meetings have increased in number; so that it has been impossible to carry out that intention completely for the last year or two; but we hope the means will be provided so that it may be done. We are having a very successful year in the Association. In July we shall have reduced our mortgage debt on the property which we purchased to $100,000, having paid off $25,000 of the cost of the property. In addition to which the building has been rearranged and put in order for occupancy by the Association and contributing affiliated societies, with the exception of the large hall which has been offered to the Library. The trustees of the Library have not yet decided whether to accept that building or not, and so nothing has been done pending their decision.

The principal work which the Association is doing at the present time is with regard to hospital insurance. There have been published in the past statements that there were many hospital fires. It is the opinion of the committee that there are not many hospital fires in the type of hospitals such as this Association is interested in, and the rates for insurance are regarded as very high. The best way of arriving at a solution of the problem is to determine what the risk is and what the rates are, and in order to do that there will be a questionnaire sent to the hospitals. I am sorry this has to be done, for you already have too many questionnaires. But this will be rather an important one. We shall ask the hospitals what their insurance rates are, their various types of buildings, what their fire losses have been during the course of a few years. We believe that if we cover a sufficiently large field, we can show the governing boards of underwriters that hospitals are paying too large a sum for their fire protection. Of course a reduction in hospital insurance rates is equivalent to a very considerable increase in your endowment funds.

Another matter of legislation which has been interesting us is a bill which has been in Congress for a couple of years with relation to testing of clinical thermometers. When the bill was first introduced it was apparent that the cost of clinical thermometers would be considerably increased because of the test made necessary under the provisions of that bill. The legislative committee of the Association has endeavored to have the bill amended, so that there

will be a proper control of the sale of clinical thermometers, but not at too great expense to hospitals.

During the last two years we have been spending a considerable amount of money in paying off the mortgage debt, from initiation fees and life memberships; it being thought desirable to be placed in a safe position before we began to enjoy the activities of the Association. With contributing members and with the lease of a private house which adjourns our office quarters, our rental figure will shortly be reduced to a sum practically no greater than the rent we formerly paid; and with our increased revenue we hope very shortly to begin to develop plans which will be of more practical use to the members of the Association. We expect during the next year to issue a monthly bulletin which will contain up-to-date papers and information with regard to hospitals and hospital practices; and we hope soon to establish a corps of experts to whom questions may be referred which can be answered by correspondence, and who will be available for service in hospitals. There are many other ways in which the Association can be made more useful, and we think that within a very short time the usefulness of the Association will begin to develop.

The next convention this year promises to be a very large one in so far as exhibitions are concerned, and we think there will be a very large attendance. Our membership is constantly increasing.

Our text this morning will be found in the twenty-eighth volume of the Transactions of the American Hospital Association, the 417th page and 1st verse:

"Resolved, That under present conditions the burden of proper treatment of compensation cases is oppressive, unjust and contrary to all economic principles, and that therefore this association make every endeavor to require that hospitals and physicians shall receive recompense in every workmen's compensation case sufficient to pay the cost thereof, and that our trustees be requested to take such action as they may deem expedient in the effort to terminate the present intolerable conditions as quickly as possible, in order that hospitals may be better enabled to properly carry on their work for the economic and social benefit of the communities which they serve."

In accordance with this Resolution the Trustees of the American Hospital Association appointed a committee to consider and report on this problem. While changes in the laws are problems for each State to handle for itself, the policy with regard to legislation should be practically National in its scope because the large insurance companies carry on their business in many States, and, therefore, the costs of doing business in one locality are more or less distributed over a larger field. The insurance companies necessarily endeavor to make their rates such as to insure a profit in their business, and the cost of insurance in a State which has adopted a liberal policy towards the workingman is more or less carried over to a State which has a narrower policy through the rates charged by the insurance company doing business in both States.

Before the Committee had been selected, legislatures had convened, and in several States there were bills pending. The situation through the winter, therefore, was in a state of flux; and it has been thought desirable for the Committee not to begin its activities until the legislatures had adjourned.

The Pennsylvania Hospital Association had a bill in the Pennsylvania legislature to change the provision limiting the maximum period of medical care to thirty days and the maximum amount to one hundred dollars. The Association was unsuccessful in its effort. In Rhode Island the maximum amount allowed was two hundred dollars and the maximum period eight weeks; and an amendment to this provision was pending. We have not learned the result. Maine, New Hampshire and Vermont have very limited provisions. Connecticut has a satisfactory law. The situation in Massachusetts will be referred to later.

The unsatisfactory condition of Workmen's Compensation Laws as applicable to hospital practice is largely the result of ignorance on the part of the lawmakers with regard to the problems involved. The parties seeking legislation have been representatives of the workmen; the parties combating advanced legislation have been employers and insurance companies. Hospitals and physicians have taken no part in discussions of the problem, and it is largely because of this inaction that they have been ignored. However limited the time of payment for medical service may have been, the result has not been injurious to the parties concerned because reputable physicians and hospitals, having assumed the care of the patient, consider themselves bound to do whatever may prove necessary to heal the injury. The situation did not, however, become acute until the gradual mounting costs of hospital practice and the value of long-continued special treatments became a serious burden. Another development of the situation was that laws were enacted permitting workmen to name their own physicians. In many instances unintelligent selections were made, and after such physicians had treated patients for the period during which they could obtain payment for their services the patients were referred to hospitals; and competent physicians on hospital staffs were required to give their services free, in many cases after complications had ensued, due to unskillful care, for which other physicians had received compensation. Staff physicians, naturally, rebelled at this situation, and the new problem was placed before hospitals of finding a method of providing compensation for staff physicians for

industrial cases and still preserving the unpaid service to ward patients in general.

This Association two years ago appointed a Massachusetts Committee to deal with the problem in Massachusetts. Negotiations were being carried on with representatives of one of the larger insurance companies until Massachusetts appointed a special Commission in April 1926 to investigate the operation of the Workmen's Compensation Law. The Committee was granted a special hearing by this Commission, which was attended by many representatives of Massachusetts hospitals. In the report of the Commission may be found the following statement:

"Such hospitals as take and treat industrial accident cases, and they include most of the hospitals in the Commonwealth, insist that they should be paid the cost of their services. The Commission believes that this is the right principle. A hospital should not be forced to do charity in industrial cases, and the full expense of the medical care of industrial cases should fall where the expenses of compensation fall."

The Commission then discusses hospital costs, suggesting the difficulty in computing actual cost of individual hospitals, stating that costs are high from extravagance as well as from the excellence of the service rendered and are low from inadequacy as well as from economy, and concluding, "The Commission is opposed to any provision which would give each hospital the right to be reimbursed for its own cost." The Commission finds that "the Industrial Accident Board now has power to determine and fix a schedule of hospital charges; hence there is no need of giving it more power in this respect."

"The Commission believes, on the evidence which has been presented to it, that $3.00 a day is below the present average cost in hospitals and therefore, while recommending no amendment of the Act, suggests that the Board again call for the advice of a committee of hospital representatives and that the Board would do well to confer with such committees at regular stated intervals, let us say, every other year."

With reference to payment of hospital physicians, there is the following statement:

"The Commission has been asked to define the right of hospital physicians who care for industrial cases as to fees. These physicians serve under regulations made by boards of trustees, and the Commission considers that it is to these boards rather than to the Industrial Accident Board, or to this Commission, that aggrieved members of the various hospital staffs should appeal. No recommendation, therefore, is made on this subject."

At the time of this writing it was learned that Senate Bill No. 298 had passed to be engrossed, and it will undoubtedly become a law when approved by the Governor. It provides for the amendment of section 30 of Chapter 152, so that the law will read as follows:

"During the first two weeks after the injury, and, if the employee is not immediately incapacitated thereby from earning full wages, then from the time of such incapacity, and in unusual cases, or cases requiring specialized or surgical treatment, in the discretion of the department, for a longer period, the insurer shall furnish adequate and reasonable medical and hospital services, and medicines if needed, together with the expenses necessarily incidental to such services."

The amendment is the insertion of the words "cases requiring specialized or surgical treatment" and the words "together with the expenses necessarily incidental to such services." The original law provided for payment after the first two weeks only in "unusual cases,"—language which was always unsatisfactory, which provoked much dissension, and many hearings. In Moore's case, decided by the Supreme Court of Massachusetts in May 1926, it is stated, "There are many injuries suffered by employees which require them to remain in hospitals and which need the services of physicians for a much longer period than two weeks. The injuries may be unusual in the sense that they do not occur under ordinary circumstances, or that recovery is prolonged. But such facts do not make them unusual cases as the words are used in the statute. The statute did not intend to put the expense of cure on the insurer when no unusual result or complication, no unexpected accident or symptom intervened."

The language in Senate Bill No. 298 is still unsatisfactory. The hospital must always request the Industrial Accident Board, in its discretion, to determine whether or not payment shall be made because specialized or surgical treatment was required. Of course, the majority of cases require surgical treatment, and in many minor injuries surgical treatment is needed for a longer period than two weeks. This fact is clearly recognized by one of the larger insurance companies, which provides physical therapy treatment in its own clinic for patients in certain localities. Under modern methods the patient deserves, and the community needs, proper care until there is as much restoration of function as is possible, and even in the case of minor injuries, such as broken arms or even fingers, the hospital is negligent unless it provides care until the results of the injury are thoroughly overcome. But in order to insure payment for this costly treatment the burden is put upon the hospital to apply to the Industrial Accident Board and impress upon it the necessity "in its discretion" of payment for such treatment.

Undoubtedly the phrase "unusual cases" was inserted in the law, and still remains there, because of the fear of abuse by unconscientious practitioners seeking to prolong services for the purpose of obtaining fees. Of course, there is no inducement on the part of hospitals which are paid only the cost to prolong treatment unduly; but unscrupulous practitioners would undoubtedly endeavor, as they have in the past, to mulct the patient of his due wages and the

employer of his money by means which are familiar as the result of many accident cases.

It was not thought wise to seek more definite relief at the present legislature, but hospitals in Massachusetts should endeavor to seek as broad an interpretation of the law as possible for their own benefit and for the benefit of the injured workmen, and, as time goes on, endeavor to procure a more comprehensive and better law. The other States represented by this Association should endeavor to get laws which are at least on a parity with the laws of Massachusetts and Connecticut.

There remains the problem of providing for the payment of staff physicians who have the care of industrial accident cases, and also the problem of providing hospital treatment for patients in charge of other than staff physicians. It would seem that this may best be done by insisting that industrial accident cases shall be received as private patients and providing for service in the nature of "semi private wards" where such cases may be admitted; and physicians as well as hospitals should be made to see the necessity of making some provision whereby the Industrial Accident Board may be called upon promptly to determine whether or not payment for hospital and medical services shall be prolonged beyond the period of two weeks, and hospitals and physicians should coöperate, as far as possible, with insurance companies so that they may understand the prognosis of the cases as early as possible, with an estimate of the probable time of treatment required and the probable length of incapacity. This should apply to out-patients as well as in-patients, and should include provision for restoration of function as well as for healing the acute symptoms. It would seem desirable that a committee should be appointed for each State represented in this Association which would be a continuing committee and which could take up in its particular jurisdiction the problems which may arise with regard to this important matter.

THE CHAIR: That is a very interesting and instructive paper, Mr. Borden. The subject is now open for discussion. Dr. Peters, have you anything to say about it?

DR. PETERS: I really don't know how much, if anything, was accomplished in Massachusetts this last year. I haven't been in touch with activities here. Has any change been made in the law regarding compensation?

MR. BORDEN: Yes; as I said, Senate Bill No. 298, which will undoubtedly become law, provides that where special surgical treatment is required, or in unusual cases, the Industrial Accident Board may approve of compensation for a longer period.

DR. PETERS: In Massachusetts are surgeons in charge of such patients allowed to receive fees?

MR. BORDEN: Yes; that is left for the trustees of each hospital to determine. In many hospitals provision is made for industrial accident cases in what is known as a semi-private ward, where such cases may be cared for; or by special provision giving the staff compensation for the care of private patients. In such cases they enter as private patients, and therefore pay the doctors' bills.

DR. PETERS: In the Rhode Island Hospital the doctors receive a fee for those patients. The doctor sends in his bill, in duplicate, to the superintendent, and it is the business of the superintendent to check up his bill as compared to rates allowed by the hospital; then it is endorsed by the superintendent's office, and is sent to the employer. We send our bills to the employer, rather than to the insurance company. This has worked much more satisfactorily than it used to. There has been a good deal of agitation in the Rhode Island Legislature in the last year or two. I don't know enough about what happened this winter to know whether there was any change made in our law or not. If so, it was made in the past few days.

DR. RICHARDSON, City Hospital, Providence: So far as I know, there was no change made in the law.

DR. DREW (Worcester): We have the same problem that all hospitals have. For several years the members of our staff have been permitted, by rule of the trustees, to render bills for ward patients to whom they give personal attention. My impression is that the doctor has no more trouble in collecting a bill than the hospital has. The Industrial Accident Board has usually permitted a reasonable bill where the surgeon gives personal attention to the patient. That is the only comment I can make. This has been the custom for the past six years.

The Chair called on Mr. Hamilton of Hanover, who replied: I am sorry to say that I am not enough acquainted with the industrial accident laws to know.

DR. WASHBURN (Boston) Massachusetts General Hospital: I am not quite clear what Dr. Peters said. Dr. Peters, do you allow surgeons to collect for patients in wards?

DR. PETERS: Yes. The trustees made a rule allowing surgeons to charge for treating such ward patients. They are the only ward patients allowed to be charged.

DR. WASHBURN: Do complications ever arise from that policy?

DR. PETERS: No. Our people hesitated a long time, and finally decided that there was no reason why it was not a perfectly just method. We have no semi-private ward arrangement.

DR. WASHBURN: Has any objection ever been made?

DR. PETERS: I do not know of any objection. Sometimes the surgeons have charged more than the Industrial Accident Board has approved.

DR. WASHBURN: You wouldn't consider the

use of the open ward in that way as the entering wedge for an attempt by the doctors to charge other patients in the open ward?

DR. PETERS: There has been no indication of such a result.

MR. BORDEN: I may say that in the Union Hospital we allow doctors who are members of our staff the privilege of treating patients in the wards who are admitted to the hospital through those doctors. The patient comes in as that doctor's patient, and we understand that he is going to pay the doctor's bills. The only condition is that we won't let him pay the doctor's bills unless he pays the hospital's bills. In other words, we give members of the staff the additional privilege of having their patients at a lower cost than they otherwise could.

THE CHAIR: How do you know that the patient is not sending a check to the doctor without paying the hospital bill?

MR. BORDEN: Very often we expect that both the hospital and the doctor will be paid, and both are disappointed.

A MEMBER: I should like to ask Dr. Peters, in case the compensation is limited to $100, who gets the $100, the doctor or the hospital?

DR. PETERS: The limit is $200. The physician sends in his bill; it is checked up by the superintendent's office; if we think it is excessive, we don't allow it. We see the surgeon and try to come to some terms.

MR. BORDEN: What if the charges amount to $300.

DR. PETERS: We make some amicable arrangement as to what each shall receive.

MR. BORDEN: Each takes a proportion?

DR. PETERS: Yes; we try to collect the hospital bill first.

A MEMBER: If the patient treated is an industrial case and treated in the open ward, must he be recommended by the doctor, or is he sent as an accident case, and assigned to these doctors?

DR. PETERS: We don't know when the patient comes in; but in taking the history we find that he is an industrial accident case; then the attending surgeon understands that he has the right to render a bill. The bill is sent to the insurance company, not to the patient; and we know nothing about it, unless we hear that payment has been refused. Sometimes there is a question, in a prolonged case, of whether the charge is fair. As far as we know, the surgeon has been able to collect as often as the hospital. When the hospital has assigned a case to a surgeon, the rule is that he may render a bill to the insurance company.

DR. WASHBURN: For more than a century this question of the possibility of the surgeon collecting fees from the patients in the general wards of the hospital has come up periodically at the Massachusetts General, more often in connection with single rooms than with open wards. The trustees have consistently refused, for all that period of time, to allow any fees to be collected from patients in the general hospital. The departure from the policy of allowing any fees to be charged in any part of the hospital was, of course, made when the Phillips House was built and opened ten years ago. I am very much interested to hear that in such hospitals as Dr. Peters' and Dr. Drew's a departure from such a policy has been made, and that they see no evil results from it. I must confess that I should see it done with very great regret in the Massachusetts General. I should fear the beginning of commercialism; the commercial spirit as opposed to the great spirit of charity and giving which has been so important a factor in the success of our hospitals. I dare say that it is the tendency of the times, and I dare say that it will come about, but I should look upon it with a good deal of dread. I do hope that in the hospital with which I am connected we shall be able to establish a pay ward for those patients of small means, of which we have many, and where the surgeon will receive the fee which is his due. I think it would be a very much better solution of the whole problem for every hospital if it could be so built and arranged that these patients should be private patients and have accommodation in private wards distinct from the charity wards of the hospital. I can't put in words just my feeling about it, but it has been bred in me all the years of my hospital life, and I do think it is of great importance to keep these things separate. However, Dr. Peters and Dr. Drew have done this deliberately, and it has apparently worked all right; yet I must confess I have a fear of it.

DR. DREW: I think Dr. Washburn is entirely right in regard to the theory; and I think it is true that many patients have been admitted to our wards who paid bills to the surgeons when they should have been treated as public patients; but they tell me sometimes that if the patient is anxious to pay the surgeon, he should be permitted to do so. If he pays the hospital a small fee and the surgeon a small fee, that is theoretically right. I know one able surgeon in our city who hardly speaks to me now because I refused to permit him to send patients who should be treated as private patients into a ward. That occasionally happens, but not enough to act as a serious obstacle.

THE CHAIR: If there is no further discussion of this subject, we will proceed at once to the next paper on the programme, "*The Present Trend of Hospital Construction*," by Mr. Edward F. Stevens.

MR. STEVENS: I will give way to Dr. Peters, who has to leave early.

DR. PETERS: I must leave before one o'clock. I want to say that in Providence during the last two or three years we have done a good deal of building, and what I have to give is

simply general knowledge I have gained in experience and from contact with different architects with whom I have been working at one time and another, and from three different firms of builders. I have been in this work some years, and have made up my mind that every hospital in construction is in good construction. The question of fire risk and insurance has been brought up this morning. In Rhode Island at our hospital we have been afraid of fire for years; we are a good deal like some of the Peter Bent Brigham officials, who are very particular about dust collecting and about possible risk of fires. I will say this, that perhaps one reason that we are so particular and afraid of fire is because we are insured in the Mutual Fire Insurance Companies, which is an unusual privilege. I suppose that happens because some of our trustees are the directors of those large insurance companies. As a result, four times a year the inspectors from this large insurance company—always a different inspector—comes in at sometime during those three months, absolutely unexpected. He comes in the front door and sends his card to the superintendent, who turns him over to the engineer. Sometimes he spends a day, and sometimes two days, going over the building, looking for trouble. A large printed form is checked up by this inspector and sent to the office of the treasurer of the hospital and to the superintendent; each gets a copy of that report. This stimulates us to be afraid of fire. For a good many years we have built only on plans calling for fireproof material.

One of the things I have learned within the last few years in building work is to utilize all space. We don't use the word "basement" any more; we call it the ground floor; and by planning and arranging space with the architect, and getting proper light into the floor space you can utilize practically all the space formerly used for dumping material, which was a source of fire in the lower floor.

We have recently built a large addition to our nurses' home. During my time there we have built three nurses' homes; the first one thirty years ago, at the top of the building, which was not of fireproof material; it had wood floors. About fifteen years ago we built a fireproof building, with many modern improvements for that time. Recently, we have made another addition. In this last building we have utilized all space, and we think we have a practical, common-sense building. We don't go into frills; spending money for decorations, but we try to put in honest, good construction; to use all space, and to provide the things that ought to be provided in a building of that sort. I don't know whether we have anything specially new in that building or not. We considered very carefully the question of plumbing in each bedroom, and after a good deal of deliberation, and of investigation of other nurses' homes, we decided not to put plumbing in each bedroom. Except in our new building in the wing, on the south side of this one, we have on each floor (seven stories) a large solarium. We have twenty-four rooms with plumbing, but the rest of the rooms do not have plumbing. In the large toilet room and bath room are two showers, which seem to be very popular; three tubs, and four lavatories, screened in by marble partitions and curtains in front. There is nothing unusual there except the partitions around the lavatories and the shower-baths, instead of showers over tubs. For some years we have used marble partitions in toilet rooms, rather than to put the cost into asphalt or tile. At the end of each floor we have built a solarium, twenty-five feet wide, with folding windows that fold out, so that in the summer time the whole piazza is open, and the nurses will get great comfort from these porches, which look into our large grounds.

On the ground-floor are two bowling alleys. We thought of swimming pools, but concluded we ought not to spend the money, because of the first cost, with the possibility of the water not being clean and pure, and constant, in view of repeated changing of the water, and the necessity of having a swimmer always in attendance with those young women. On the ground floor is also a recreation room which we let pupils and officers decorate. We older people have ideas of color, but, believe me, our youngsters have different ideas. Bright yellow and purple and pink are all right; but I shouldn't want to eat there. They have a place large enough to dance in, where they can make all the noise they want; they have a kitchen, with dishes and all that sort of thing.

We have used linoleum throughout the building, except in the corridors. Fitted in between the wings of these new buildings and one of the older buildings, we have built a large auditorium, with a seating capacity of 550, crowded, and 400 comfortably. It has a stage, and under the stage are four dressing rooms with adjacent toilet facilities; we have footlights and back of that a room fitted up for moving the scenery. We shall turn that over to the nurses for recreation. They have already had a little play there. We expect to get a great deal of comfort and pleasure out of that room. The whole lower floor is practically on the ground level. These rooms on the ground floor are very well lighted by an area around the building, so that we use daylight during the day, and don't have to depend on artificial light.

On the first floor are five classrooms, fitted up with blackboards, proper lights, plumbing, store-closets. One of these rooms is fitted up for giving massage. On this same floor is a laboratory, very completely furnished under the guidance of one of the Brown University professors. Just as the building was ready to be opened, I received a letter from the son of one of our old

trustees, who lived at a distance, saying that he wanted to give a sum of money in memory of his father, and asking suggestions as to its use. I wrote him that one of the best ways would be to fit up a laboratory with proper equipment. He agreed at once, and turned over $5,000, and we bought thirty-six microscopes and glassware and other equipment. I don't know whether it cost more or less than his gift; we made a bold guess, and he sent us the money. We have a very nice x-ray apparatus; with an arrangement for giving instruction, with short benches for four pupils. One can control or guide or supervise the work there very readily.

In the old buidings we have set aside some small bedrooms for little reception rooms for nurses' visitors. We hope in the future to have a large reception room; but as it is now we shall have two large reception rooms and eight small reception rooms; all under the control of the matron or assistant matron, who has a room near there.

On the ground floor of this same building we are getting ready to provide large rest and dressing rooms for our graduate nurses, who up to this time have had to occupy rooms in the nurses' homes. We hope to turn over a good deal of space for their convenience and comfort.

In the country, twenty miles from Providence, we have had for many years a branch children's hospital. Mrs. Brown, who is one of the good people of Providence, turned over one hundred and twenty-five or a hundred and thirty acres of her old homestead situated on the bay. We are just finishing, and will occupy there this month, a modern building, built entirely for children. Among other unusual features, perhaps the most important, is a swimming pool enclosed in tile, into which salt water from the bay will be pumped, heated in winter; with dressing rooms and all the paraphernalia and accoutrements that go with such a place. On the second floor there is a very large school room and other adjoining rooms. Here is another case where we used the so-called basement space. We were out in the country, with no question as to land; and we went up to the top of a hill and dug a cellar, and graded back fifty feet on either side and sloped the ground down; so that the rooms on the ground floor will be as pleasant and airy as those of an upper story; and we think we have gained something. The capacity of this building is nominally fifty or sixty; but used as we think it will be, it probably can house seventy or eighty. In all departments the service kitchens, power plants, storerooms, are built for an institution twice its present capacity.

In the little building that has been there for thirty years, where we take care of infants, we have always had two piazzas, on the west and south sides of the building. The south piazza we have roofed over, and in the roof we have put vita glass, large panes three by five feet. We have a lot of steam heat, so that we can heat it in a hurry. It is hard to say whether the children are not better with this treatment by vita glass than without; but from all the tests made in laboratories and reports from institutions where the glass been used, we feel that we have done a good thing. In this building, built for another purpose years ago, we have three large wards, with beds for ten children in each ward. The children are kept there a certain number of days, and then are sent to different wards, according to ages; babies under a year are sent to one ward, and those between two and three years are sent to another ward. Besides these three wards, we have a solarium, and nine single rooms for separation or isolation. I am firmly convinced that the success we have in treating sick children and preventing the spread of disease is due to the methods of Dr. Chapin and Dr. Richardson, but especially to the possibility of isolating sick children. If you must treat them in institutions as they do at the City Hospital in Providence, why then the aseptic methods are of great importance.

A paper on *"The Present Trend of Hospital Construction"* was then read by Mr. Edward F. Stevens, 45 Newbury Street, Boston.

THE PRESENT TREND OF HOSPITAL CONSTRUCTION

BY EDWARD F. STEVENS, F.A.I.A.

AUTHORITIES tell us that $300,000,000 are being spent for hospitals contemplated and under construction at this time.

What are those hospitals like? What have we learned from the millions of dollars spent last year and the year before in hospitals? Are we solving a hospital style of architecture as one speaker at our meeting at Atlantic City recommended? Is there any outstanding improvement from the plans of, let us say, five years ago? These and many more questions present themselves to each one of us who is interested in hospital development.

A careful perusal of some of the best studied plans will show almost as many solutions of the hospital housing problem as there are individual plans. What Dr. A. would approve, Dr. B. would condemn, and Architect C would doubtless differ with each; so that any observations which I may make as to the essentials, many of you—the real administrators of the institutions—will quite likely differ with, but as the hospital architect is so dependent on the hospital administrator and nurse it is hard to know whose ideas should prevail, but I feel that only by the collaboration with all interested in a development are the best results reached.

One of the first most noticeable features in the

improvements from earlier plans is the concentration of ward units. Twenty years ago we were building the spread-out or pavilion type of building. This might or might not have been taken from the English or German hospital. King's Chapel Hospital, Virchow Hospital, Barmbeck Hospital, Munich-Schwabing Hospital undoubtedly influenced the planning of such hospitals as the Cincinnati General, the St. Luke's Jacksonville, and the Peter Bent Brigham, for in each case they have the pavilion type with long horizontal runs as in the European hospitals, with perhaps this difference—that the German pavilions were rarely more than two stories while the American hospitals might be three, four or five stories.

Whether it was the high price of labor or the high price of land that influenced the planning of the concentrated or block type of hospital, like the Fifth Avenue, the Ottawa Civic or that great medical centre the Columbia-Presbyterian, certain it is that labor is very much conserved in the block type.

If I may run through the plans of the Ottawa Civic, with 25 acres to build upon, I will try to show how the service is conducted in this 500 bed unit under one roof, and how it was possible to provide all departments, public wards, intermediate, private, children's, maternity, isolation and psychopathic accommodations, each with its own service, and each department as much shut away from another as if in a separate building.

This construction is not always possible, for alterations and additions are often the only means of enlarging an institution, generally by erecting an additional pavilion. This is often accomplished by making the pavilion a multi-story building, functioning with the lower buildings of the original group.

What improvement have we made in the small hospital? Has it been commensurate with the large number of erections of the so-called small hospitals? One of the important features of any hospital today should, I believe, be the entrance, both exterior and interior. It should speak a welcome, for it is the first impression one gets as one enters the hospital, and has much to do with the peace of mind of the would-be patient for the average person enters the hospital with a feeling of dread and fear and unless that fear can be dispelled by a feeling of cheerfulness which can be established by home-like surroundings by a sympathetic welcome and careful furnishing of both room and equipment, the patient is not getting what the hospital should give him.

With the small hospital it has been found in many cases that space is greatly conserved and the work more easily accomplished if the working units, or the "work shop," such as the operating room, the laboratory and the X-ray departments may be with the main service and work rooms and the offices on the first floor, leaving free the upper stories for patients (Mary Lane, Penn Yan, etc.). By this method much confusion is avoided.

The question of bed sub-division of patients' space, whether in large or small hospitals, is one which I believe has undergone a great reaction in the majority of cases. While a few years ago the typical ward of the large hospital might be the long narrow room, with eighteen or twenty patients in an open ward, like the Harper at Detroit or the Cincinnati General, today we believe that the smaller ward is a better solution. Still a large ward may be sub-divided like the Bridgeport maternity ward, which while it has sixteen beds is divided into four groups of four each. In the new Springfield Hospital with the exception of the children's department, no ward will contain more than five beds and each bed is separated from its neighbor by a fixed screen, thus giving the advantages of a private room with the service of an open ward. This service is still more augmented by direct connection with a sub-sink or utility room, where bed-pan service can be rendered.

With the private room service, the same conservation of nurses' time can be obtained by a toilet which will serve two adjoining rooms and by providing for bed-pan service and storage with the minimum outlay for plumbing.

While the direct service to the patients may be ideal, unless the general utilities, like the serving kitchen, the sink room, the elevators, and the linen closets are placed to function to the best advantage, the plan may be lacking in virtue. The proportion of space used for utilities should be considered and the next few slides will illustrate not only this point, but will show the cubical ward, and toilet serving two rooms. The Lawrence Hospital at Medford, another New England product, will afford an illustration of the wards with cubicles. Of these slides I have adopted the color scheme used by my confrere, Mr. Myron Hunt of Los Angeles, in a most enlightening talk given at our Buffalo meeting, I think it was. These show the various departments and give us at a glance the proportion of space devoted to patients and that occupied for other purposes.

Conservation of space whether in utilities or patients' housing is important but we cannot afford to "conservate" to the point of losing the efficiency of our building. We must consider the well-being of our patients in safeguarding them from discomfort.

The construction of cubicles may be of most any material but I believe they should be of a substantial character. I have found that a solid 2″ plaster wall, 7 ft. high, with an air space of 6″ at the bottom has been very satisfactory in my own practice. Sociability can be had by the little door in the partition at the height of the

patient's head. This door may be closed after the morning "call" or "afternoon tea."

Two slides will show the constructions of the intercommunicating toilet with bed-pan washer and cabinet for utilities.

A few years ago I read a paper before this association recommending the importance of sound-deadening walls and ceilings in all hospitals and I am led to feel that this is among the most important improvements that have developed in the past few years. Simpler and cheaper methods have been brought out for this purpose.

I don't dare mention the "best floor" question for so far the best floor doesn't exist, that is, for every one. I think, however, that terrazzo has more friends than any of the other "57."

Decoration, yes, let us have decoration and color, applied in good taste, of course. I wish every hospital with a children's department might have the coöperation of some good artist, as this hospital on Puget Sound, to decorate the children's rooms.

To recapitulate, I believe the trend of hospital construction is toward

1 Greater Concentration of Service
2 Higher Buildings
3 Greater care given to first impression of patients in having an artistic entrance
4 Smaller wards
5 Cubicle system of wards
6 Importance of Sound-deadening
7 Importance of Good Decoration.

THE CHAIR: I am sure we are very much indebted to Mr. Stevens for his most interesting paper. We had planned a discussion, but as Dr. Peters has already given the substance of it, and the time is very short, unless there is some objection, I think we will proceed immediately to the next paper on the programme,—on the subject of "*Central Hospital Council*," by Mr. Horace Morison of the Boston Health League.

HOSPITAL COUNCILS

THE history of the last ten years has demonstrated as never before the broad values of joint planning and coöperative effort. In 1916 the Cleveland Hospital Council was formed "to promote the efficiency of and coöperation between the various interested hospitals to the end of better meeting the hospital needs of the community." This was the first step taken in organized coördination of hospital policy in a metropolitan city, and preceded the public health federations like the Cincinnati Public Health Federation, the Cleveland Health Council, and the Boston Health League. Mr. Clapp will describe to you the work and accomplishment of the Cleveland Hospital Council.

Authorities in the public health field like Dr. Haven Emerson and Prof. C.-E. A. Winslow are advocates of hospital councils. In a survey of Hospital and Health Agencies of San Francisco made in 1923 by Dr. Haven Emerson and Miss Anna C. Phillips a hospital council was strongly recommended for San Francisco and was later organized in 1924. In the survey of Hospitals and Health Agencies of Louisville, Kentucky, made in 1924 by Dr. Emerson and Miss Phillips the "sound policy" of a hospital council was set forth and resulted in the establishment of a Hospital Council, or Hospital Committee as it is called, for Louisville. It seemed timely, therefore, to the officers of the New England Hospital Association that the subject of a hospital council should be discussed at this meeting of the Association, particularly in view of Prof. Winslow's recent report, "The Community Health Association and Its Relation to Boston's Health Program," in which he advocates a hospital council for Boston.

Why is it these leaders in the field of public health feel so keenly the broad values to be obtained from hospital councils? I believe it is because they are constantly thinking in terms of the community as a whole, and in the integration of the health and social forces of the community towards a better community plan and better community results.

It should be remembered that hospital councils are voluntary and advisory bodies. There is no formal agreement among the members, only a common obligation to the community and the member agencies.

From the hospital council should come a plan of joint service based on proven community needs. The council should think in terms of the city as a whole, and there should be a comprehensive program covering the city, having in mind the major hospitals, the minor hospitals, and the dispensaries.

Without a council or committee there is a lack of thought as to the extension of hospital capacity and equipment, as to the location and functions of future hospitals, and as to the consolidation of existing hospitals, more especially small hospitals that find they are unable to raise funds for new constructions.

In the dispensary field, perhaps through a committee on dispensary development, the hospital council would study the needs of the various sections of the city, and would be in a position to make practical suggestion as to expansion or curtailment.

The hospital council will discuss hospital policies, and by so doing will reduce to a large extent the misunderstandings which are aggravated by their present isolation.

Through the council will come a better relation to the social and public health agencies in a community, and as the council develops, joint policies will be evolved in respect to charges to clients of social agencies, policies of assistance during convalescence, and as to the supplying of apparatus.

A hospital council may well consider the joint

clearance and distribution of convalescent cases, of chronic cases, and of incurable cases.

What plan has been worked out at present by the hospitals as a whole to meet the demands of epidemics, catastrophes, or the heavy demands of the particular season of the year?

Is there any joint informational publicity as to general hospital statistics, work done, and costs?

Effective publicity in this regard should lead to a more discriminating use of hospital and dispensary facilities, and a more generous and effective support on the part of the community.

In a hospital council standards of the far-seeing and efficiently administered hospitals will naturally serve to influence more adequate standards in other hospitals. Medical, administrative and financial statistics may be reported on a more uniform basis, and improved medical, financial and administrative policies should result. Accounting systems should approach uniformity to the point that a statement of essential facts and work done may be presented to the community on behalf of all hospitals.

Prof. Winslow has mentioned the need of the adoption of uniform policies in regard to payment for medical care and medical supplies by those of limited means. Is not this clearly a subject for study by a hospital council, to which should be added facts as to part pay patients admitted and those applying and not admitted, and will not such a study be of great value in determining future policy.

The hospital council may well deal also in standards for salaries, wages, hours of work of hospital personnel, and provisions for initial and periodic health examinations of hospital workers.

Are the hospitals as a whole aware of current legislation, both local and state, affecting their public health responsibilities and possibly their financial interests? A hospital council may render an important service in keeping the hospitals informed concerning legislation.

There are many other questions suitable for consideration by a hospital council, such as obtaining recruits for schools of nursing, and numerous questions of hospital administration, to which I will not refer at this time.

In conclusion, the hospital council offers a logical plan for a practical working basis between a number of hospitals contemplating coördination of policy, elimination of duplication and waste, improvement of service, and a joint program for progress, acting with the public health and social service agencies of the city.

The desire for a hospital council must come, however, from the hospitals themselves, and the usefulness of such a council will depend on the measure of thought and interest given to the council by the representatives of the member agencies.

THE HOSPITAL COUNCIL IN CLEVELAND

BY RAYMOND CLAPP

Its greatest accomplishment has been to get those interested in the various hospitals acquainted with each other and to convince them that coöperation is more helpful than competition.

Twenty hospitals (two public tax-supported, and eighteen private, gift-and-endowment supported hospitals) constitute the membership. Each hospital appoints three representatives—usually a trustee, the executive officer and a visiting staff member. These, at the annual meeting, elect the board of trustees and officers of the Hospital Council. The members meet at least four times a year but the board of trustees, which is largely responsible for the conduct of affairs, meets at least once a month. Use is made of special committees for advisory purposes on such matters as legislation, collections, purchasing and standards and dispensaries.

The Hospital Council from its very beginning has been democratic and representative in character. Its governing body of trustees is vested only with limited powers. No right of supervision or control over the constituent member hospitals exists. The Council can do only what the members agree to do and authorize to be done by their agent. Even then, its acts are not necessarily binding upon the member hospitals for each member is controlled by its own board of trustees. Neither by expression or implication does there exist any centralized control.

The Hospital Council, with its represented hospitals, may be likened to certain voluntary or incorporated associations of large business corporations. In general, its object is to preserve and promote the common interests of the constituent members. It is agreed that hospitals have a common obligation to assist each other by coördination of action and development of the most efficient methods in the performance of their functions, thereby simplifying the problems of management, preventing duplication of effort, eliminating waste, reducing costs and improving service rendered; to give the public an intelligent accounting of their stewardship; to educate the public to a substantial degree of willingness to give moral and financial support; to initiate and favor wise local and state legislation and to oppose all legislation inimicable to their field of work. While the chief object of business concerns so associated is to increase profits, the aim of the hospitals, so associated in a common organization, is to increase and improve the service rendered to the community.

In 1916, the members of the Hospital Council asked themselves this question: What can the hospitals do through a central organization to increase their own efficiency to the end of bet-

ter meeting Cleveland's hospital needs? The answer is found in the adoption of the following constructive program which, in the main, has been adhered to throughout:

Adopt business economies found wise locally or elsewhere, such as the storeroom system of control and distribution of supplies and coöperative buying.

Adopt uniform accounting systems; uniform, at least, in the essential particulars of modern hospital accounting, which will make it possible at all times to give the public an intelligent statement of the work done and the unit cost of the same.

Promote the feeling of responsibility on the part of the hospitals to know and to better the social factors influencing their patients as individuals and members of the community.

Keep informed, through the central organization, of all legal matters and all legislation, local or state, affecting the work of any one or all of the hospitals in the Council.

Coöperate in matters of medical and nursing education. Substitute coöperation for competition in securing internes and in securing and training nurses.

Coöperate in urging the municipal, county and state authorities to assume their full responsibilities toward the sick and for the removal of conditions which are responsible for sickness and injury. Treatment of cases of preventable sickness and accidents now forms a large part of the work of the hospitals. Reduction of these will not only save suffering, but the cost of the care.

Coöperate with the city and state divisions of health in meeting obligations toward the public health.

Consider the needs of Cleveland as a whole in the planning of new hospital and dispensary facilities; their relation to existing facilities; their weaknesses and strong points; their concentration and their distribution.

Make the Hospital Council the center of hospital coördination and progress in Cleveland.

Before taking up the larger problems involved in modern hospital work, it was deemed advisable to study financial questions. Especial consideration was given to rates and charges made for the various classes of hospital service, as well as to existing systems of accounting. It was early agreed that hospitals should not rent private rooms at a rate less than their full maintenance cost; that hospitals should not rent their beds for cases for which industrial or other corporations were morally and by the Ohio laws responsible, at less than cost. "Hospital cost for service rendered" was adopted as a policy.

Prior to this time, it is doubtful if the officials in any one hospital knew the rates for service charged by others. In a sense, at least, it was considered as secret information. There was competition between some of the hospitals to secure industrial accident work. Hospitals sometimes actually bid against each other for such work, without common knowledge of the fact. A study of per capita costs and rates followed, with the result that private room rates and ward rates have gradually been increased in relation to the cost, freeing charitable funds for true charity service.

Ohio has a state commission through which compensation is provided for industrial accidents. After long effort the Cleveland Hospital Council was instrumental in securing recognition of the principle of reimbursement for hospital care at hospital cost instead of at "charity rates" a principle that means at least $150,000 annually to Cleveland hospitals.

The next step was adoption of uniform practice in cost accounting and service statistics. Here too, much study was required and individual hospitals had to change their systems at considerable cost and trouble. It was done however and Cleveland hospitals have been able to compare costs and service to their great mutual benefit.

An active interest has been taken in legislation. In 1917, the Hospital Council was requested by Governor James M. Cox to make a study of medical and hospital legislation in the state. An extensive survey was made and report published, with legislative recommendations. Several important measures were enacted as the result of this report—one centralizing all state authority as regards hospitals in the state department of health; the other creating a bureau of hospitals in that department with authority to define and classify hospitals and dispensaries and to require them to register and make annual reports, as well as authority to license maternity hospitals. This legislation, so recommended, was based upon the principle which the Hospital Council has steadily advocated, namely: That the state should exercise a reasonable supervision over hospitals and dispensaries as public health organizations. State control it has always opposed.

A third measure of consequence as recommended in the report to the governor and enacted into law after a lively legislative battle definitely legalized the administering of anesthetics by a registered nurse under the direction of, and in the immediate presence of, a duly licensed and qualified physician.

The Hospital and Health Survey is one of the serious ventures of the Cleveland Hospital Council. Undertaken in 1919 that there might be wise hospital and health planning for the city, it was one of the first surveys of its kind in the United States. Fundamental principles in modern hospital and health work were set forth by the Council to be used as a guide by the survey staff. This outline is summarized here that there may be a better understanding of what was sought to be accomplished:

Hospital and health activities have a common purpose; it is better public health and fewer preventable deaths. There are four fundamental contributing factors to the efficient work of all hospital and health organizations working to this end. These are:

Development of medical education, both postgraduate and undergraduate.

Development of nursing education, both general and special.

Advancement of public health and preventive medicine.

Care of the individual sick.

Due consideration must be given to each of these four factors in considering the work of any individual hospital or health organization or group of such organizations or community hospital or health needs.

The survey was divided into two parts:

I. A survey and study of the existing hospital and health facilities—public or private—of Cleveland. It attempted to determine the contribution being made to the common end by the different institutions individually and collectively; to discover ways in which these institutions could be made to contribute more, by reasonable changes either in the division of labor with other institutions, the volume of work done or contemplated, or in the way of doing the work.

II. The second part was a more extended study of the community to determine the ideal number, grouping, location, character and functions of the hospital, medical and health institutions which could best serve Cleveland at once and during the reasonable future development of the city.

The survey reports were, on the whole, well received in Cleveland. New stimulus was given by the survey to many plans already under contemplation. For example, it is stated that the Hospital and Health Survey came at a time when it proved of special value in assisting to formulate a comprehensive plan for the orthopedic work of the city. A department of nursing education at Western Reserve University had been discussed for a long time before the survey, but it seems fair to say that the survey actually hastened the beginning of this project by re-emphasizing its need. The survey contributed largely to the passage of the $3,500,000 bond issue for the Cleveland City Hospital and its interest in the training school for nurses of that institution was helpful in producing results long before the reports were published.

A central dispensary committee of the Hospital Council was one of the direct results of the survey. Its membership includes representatives of some of the hospitals which have outpatient departments, the city commissioner of health and a representative of the academy of medicine. The executive secretary of the Hospital Council served as secretary of the committee. Its purpose was to improve dispensary standards, formulate policies and plan dispensary development for the community as a whole. The survey findings and recommendations as regards dispensaries received careful consideration by this committee. The committee has assisted in carrying out numerous practical recommendations of the survey and has acted in an advisory capacity not only to individual dispensaries but to the Welfare Federation. It has made recommendations relative to the organization and development and budgets of two new dispensaries which have been opened and are now operating along the lines suggested by this committee.

During the latter part of 1921, the Hospital Council extended its work by the addition of a collection service.

The central agency recognizes hospital social service principles, applies them in the business of collection and endeavors to eliminate the customary commercial phases of the professional collection agencies. It does not assume the social service functions of the individual hospitals.

Many far-reaching results have come from this service in the improvement of the admitting system in some of the hospitals. More extensive inquiries are made upon the admission of patients as to their ability to pay. New record systems have been adopted. In addition, some of the hospitals are following up their accounts more systematically before sending them to the Council.

The collection service also handles all industrial and accident accounts, especially claims against the State Industrial Commission or self-insurers for hospital, medical and nursing care of injured persons. Contracts between the individual hospitals and the State Industrial Commission for the care of injured workmen at the expense of the state insurance fund are now made on the basis of actual cost of hospital service.

The purchasing service of the Cleveland Hospital Council is a manifest illustration of the advantages of coöperative and professional purchasing in comparison with the customary individual and indiscriminate buying. The results obtained in eight years demonstrate that the principles of centralized purchasing, which has become such a powerful factor in the conduct of modern business corporations, can be successfully adapted to the management of a group of public charitable hospitals and similar institutions through a central office, controlled and operated by that group for the common benefit.

Work actually began in July 1918 under a committee whose chairman is purchasing agent of one of Cleveland's most important industrial corporations and whose purchasing agent had

practical experience with the purchasing department of the City of Cleveland.

Volume of purchases grew from $26,000 in 1918, and $268,000 in 1919, to over $1,000,000 in 1926. The increase was gradual and the department has been an unqualified success. Credit is due to Guy J. Clark, who has been in charge since its beginning, to the Committee, and to the spirit of coöperation fostered in the hospitals by the Council.

A great deal could be said about the benefits of joint purchasing if there were time. May I merely sum them up with the statement that joint purchasing in Cleveland has meant better quality and better satisfaction per dollar spent. It has improved, not cheapened, the goods bought, and therefore the service rendered.

Much of what has been described has dealt with the material benefits of reduced cost and increased earnings. It is of such concrete facts that we can be specific.

Improved standards of medical care are more difficult of appraisal and, even where they can be demonstrated, who can say what credit is due the Hospital Council for their achievement.

During the life of the Council the city has grown in population by 50%, the number of hospital beds has increased 85%, the days care given by 95%, the number of different patients treated has tripled, because the average length of stay has been reduced from 21 to 14 days. The number of out-patient visits has also tripled.

The number of employed professional staff personnel on in-patient service (exclusive of student nurses) has doubled, the increase being from ten to twenty per hundred beds, while the number of other personnel has remained stationary.

The salary and wage cost per bed per year has increased from $170 to $673 or two and two-tenths times as fast as the cost of living, and the total patient day cost has increased 40 per cent. faster than the cost of living.

These comparisons give some indications of improving standards, especially in employed professional personnel. Some of this is due, without doubt to the Survey and the other activities of the Council.

But the greatest values of the Council plan are intangible. The substitution of coöperation for competition, of understanding for suspicion, of teamwork for individual unrelated effort, have revolutionized the spirit of hospital administration to the great benefit of the hospital, the patient and the community.

Discussion

Mr. Bowditch: Is there any connection between the chest committee and the purchasing committee of the Hospital Council? There has been a rumor that the hospitals connected with the chest committee had to purchase through the purchasing committee in order to get money out of the community chest.

Mr. Morison: During eight years' experience with the purchasing department, I have known of no such thing. During the earlier years there was a very small amount of purchasing done; twenty-six thousand dollars the first year, a quarter of a million the second year, and the increase has been gradual. I think that is the best evidence I can give that this increase was not forced by the chest committee, but allowed to grow, with encouragement, of course, but not with any undue pressure upon institutions.

There being no further discussion, the meeting was adjourned, to meet at 2:15 p. m.

Afternoon Session—May 5

The first address of the afternoon session was given by Mr. Ingersoll Bowditch, Trustee of Faulkner Hospital, Jamaica Plain, Mass., on *"How to Interest Trustees in Their Own Hospitals,"* and was as follows:

HOW TO INTEREST TRUSTEES IN THEIR OWN HOSPITALS

This question has been brought to my mind at the meetings of the American Hospital Association which I have attended. If a superintendent has been fortunate enough to have one of his trustees attend a meeting, other superintendents look at him with envy and ask how he did it.

This means that superintendents want their trustees to take that kind of interest in their hospitals which they themselves take. It is undoubtedly wise to let the superintendent be responsible for the running of the hospital but the trustees should know enough so that they can talk the same language. I have been fortunate in having Miss Ladd of the Faulkner Hospital with me at the last two Association conventions and have gone over with her the details of supplies and equipment needed at the hospital: I have also had the opportunity of talking with representatives of the firms manufacturing the supplies and equipment, and am sure that my interest in hospital work has been stimulated by this intimate contact with hospital affairs. I strongly advise trustees to attend such conventions whenever possible if only to have the pleasure of talking with those who have the same interests at heart.

In a large hospital, like the Massachusetts General, it should not be difficult to get each trustee interested in some portion of the work for which he has a natural liking, but in a small hospital of fifty to one hundred beds the problem is a difficult one. Usually the president and the treasurer take the most interest on account of their positions, and the other trustees are not so active, especially when the hospital has an efficient superintendent and the problems of finance and growth are not pressing. A small hospital is a community institution, and those

in charge are chosen to represent the communities served. The trustee should not be contented to attend the monthly meetings, listen to reports and then forget all about the hospital until the next meeting. Just here I should like to emphasize the necessity of making these meetings interesting to the trustees. Formal reports should be short and minor details should not be brought up. These can be better settled by the executive committee. The superintendent should report on the larger problems and his plans for the future. It is in his and the president's power to make the meetings interesting if a little thought is given to them.

The trustee should become familiar with what his hospital offers to the community and what sort of service the community needs. He should visit other hospitals and find out what they are doing for their communities. Frequently he should visit his hospital and spend some time looking it over with the superintendent or head nurse with the idea of finding out for himself if the equipment is up-to-date and the patients are being given every chance possible to get well. A talk with patients will bring out facts he never thought of, and often a very small change in the methods used or additional equipment bought at a small expense will make a great difference in the attitude of the patient towards the hospital. All good superintendents welcome constructive criticism and are glad of the chance to make their trustees familiar with the work they are doing.

Trustees should not expect the president of the board to do all the work. They should share with him the responsibilities and take interest in that part of the work for which they are especially fitted. They should be kept busy in order to become interested. I know of one trustee, mechanically inclined, who spends a great deal of time on devices necessary in orthopedic work. Another trustee looks after the repairs to the buildings and is a great help on questions concerning the heating plant and apparatus connected with it. I am especially interested in the human side of hospital work and like to feel that the patients have their personal needs looked after. For the Faulkner Hospital I have obtained subscriptions to magazines which are loaned to the patients. A lending library has been established, from which new books are furnished for two cents a day and the proceeds used to buy other books. When these books get slightly worn they are added to the free library. Cards are supplied so that convalescents may pass the time playing solitaire or with one another. Picture puzzles and dissected maps are provided for the amusement of children. With these diversifications the patients have less time to think of their physical discomforts. As a nurse expressed it, "They don't have time to think up an excuse to call me."

I also am interested in the work of the hostess, who has done a great deal to create a friendly feeling for the hospital among the patients. Besides seeing that their personal wants are cared for, she greets the patients when they arrive at the hospital and sees that they are made comfortable in their rooms while waiting for the nurse to look after their medical or surgical needs. Serious consideration is being given to the need of having two hostesses so that one will always be on duty.

When a patient complains about a hospital it is often due to the lack of the right kind of reception on his arrival.

Trustees interested in science or chemistry could work very well with those in charge of the laboratories and X-Ray apparatus. Business men could assist the treasurer in financial matters, such as making investments and preparing the annual budget. Nearly every hospital has a committee on finance whose duty it is to approve the purchase and sale of securities. This committee should be familiar with the investments of the hospital and at least once a year, when the annual account is made up, go over with the treasurer the list of securities and decide what changes should be made, if any. If this were done I am sure the hospital would receive a great benefit.

It might be wise, if there is a sufficient number of trustees, to change each year the work they are doing so that all may become familiar with all departments of the hospital.

Community hospitals must grow with the community and, if possible, keep ahead of it so that at all times the doctors may have sufficient accommodations for their patients. To do this the hospital must receive gifts and legacies sufficient to enable it to build wards, nurses' homes and servants' quarters, and provide necessary equipment as it is needed. A trustee can be a great help to his hospital if he keeps in his mind a picture of its future growth and at every opportunity tells his friends and neighbors about this future development so that they can provide for it in their wills or be willing to give a substantial contribution when the need arises. The more the future plans of a hospital are known in the community the easier it will be to get the means to expand. The people need to be educated to the fact that the hospital is theirs and it is to their advantage to have the best at their disposal. They also want to understand that the trustees are their representatives and desire to conduct the hospital for their benefit. May 12th is National Hospital Day. All trustees should arrange on that day to have their hospitals open to the community so that the people may see for themselves what is at their disposal in time of need. I hope I have given enough suggestions to make clear that it is necessary to give a trustee something to do in order that he may become interested in his own hospital.

I want you all to give consideration to a plan

which I have in my mind and which seems to me will fill a great need and be a great benefit to all hospitals. The meetings of the American Hospital Association, of which the New England Hospital Association is a branch, are held so that superintendents and doctors may discuss their problems and exchange ideas. Exhibits are made by the manufacturers of hospital equipment and supplies so that a great deal of time is saved if anyone is desirous of seeing what is on the market. There is a trustees' section where the business problems are discussed, such as insurance, accounting, investments, etc. Massachusetts has its doctors' and nurses' associations but I have never heard of a hospital trustees' association. I should like to see formed such an association, its members being trustees of all hospitals in New England with branches in communities where there are sufficient hospitals to make it worth while. Meetings of the association could be held annually and the branches could meet more often. Short papers would be read on subjects of interest to the trustees, followed by informal discussions, and chances could be given for members to bring up their own special problems. A meeting could be devoted to insurance, and a representative of some large insurance company invited to tell the trustees what kind of insurance to carry and how to keep the rates as low as possible. I looked into this subject last summer and was surprised to find how many different factors made up the rate and how the rate differed with different hospitals. Another meeting could be devoted to accounting. It is very difficult to compare accounts and determine which hospital is run most efficiently because the methods used are so varied. About twenty years ago an attempt was made to work out a method of accounting for small hospitals in order that an accurate comparison might be made as to the cost of the care of patients. After a good deal of time was spent on the matter a report was made but its suggestions were never adopted. An interesting subject to hear about would be the building laws applicable to hospital buildings. A good program committee could provide for many interesting discussions, and I feel sure that we would be better trustees for attending such meetings.

I have written this paper with the hope that it may encourage a trustee to give more thought to the work of the hospital with which he is connected and enable him to see points from a different angle. There is no better way to become interested in a subject than to study it from all points of view.

Discussion

The Chair asked Mr. Weber to open the discussion.

Mr. Weber: I did not expect to discuss this paper. The only suggestion that occurs to me offhand is that the superintendent might very well make extra copies of his monthly or quarterly reports and send to members of the board obliged to be absent from the meetings. It would help to keep the trustees in touch with what is going on in the institution.

The Chair: Dr. Sexton, have you any particular method of keeping the trustees interested?

Dr. Sexton: Dr. Hersey asks that question with a smile. I have the greatest difficulty in the world in getting executive committee meetings. I presume it is our fault, for we have the best board in the world, but they are too good to me and always accept my statements; they are too little inclined to investigate. Yet I do feel that there is a possibility of the board, or individual members of the board, impairing the work of the superintendent who knows his job and does his job. I am talking about possibilities; it is impossible, unless a trustee is always at the hospital, to know the details of everything that goes on. It is difficult in a large institution even for the superintendent to know all details; and it occurs to me that there ought to be a middle ground; that the trustees ought to know more and do more, but should not interfere with details of the work of the superintendent if they expect him to do his job.

Dr. Hersey: I was interested in what Mr. Bowditch said about a hostess to conduct patients to the ward. What are the duties of that hostess?

Mr. Bowditch: The duties of the hostess are to meet patients at the door; to see that the room is ready for the patient, and to take her to her room; to provide reading matter, if she is not to be operated on, and to see that the nurse in charge of that ward knows she is there, and is taken care of. I have been very much interested in this because of experiences of members of my family. In one case, a woman went to a hospital here in Boston; the room had been engaged two weeks before. She went to the hospital when the doctor told her to, and there was nobody there to receive her; nobody knew that a room had been engaged; they said her name had been crossed off the list. Mrs. Bowditch happened to go to see this lady, and when she came home she said there was nothing too bad for the woman to say about the reception she got at the hospital. Another case was when I went to a small hospital in New Hampshire, and had a somewhat similar experience; nobody knew anything about the case; it didn't give me a very pleasant idea of the hospital. That is what this hostess does at the Faulkner; the unfortunate feature is that she can't be on duty sixteen hours in the day. She is on duty eight or nine hours, when the rush is on. She also meets visitors in visiting hours, and tells them whether they can see Mrs. So and So, and how many persons are with Mrs. So and So. She goes around to see if she can write letters

for people, or read to those who can't read themselves. We have a library, and she asks what kind of books they would like to have. We have a little money for books, and she buys new books that seem to be popular with the patients. It seems to me the field is unlimited with just the right person, and I have been very much interested in her work.

DR. HERSEY: She is not a trained nurse?

MR. BOWDITCH: No; just a person interested in that side of the hospital work. A very interesting incident happened a little while ago: a gentleman from Australia came to the hospital; he happened to come when the hostess was off duty, and he was not received as the gentleman from Australia thought he ought to be received, and he didn't leave the hospital with the idea of it that we hoped he would get. It took quite a little talk on the part of one of the lady trustees to kind of smooth the matter out. We felt that it would not have been that way if the hostess had been on duty at the time he arrived.

A MEMBER: I should like to ask Mr. Bowditch how many admissions he has into his hospital in a day.

MISS LADD: We average perhaps four admissions in a day. We have fifty-four adult patients, and perhaps average two or three visitors a day to a patient and the same number in the evening. I was thinking as I sat here that perhaps to superintendents of larger hospitals a hostess may not seem as necessary as to smaller hospitals, because it is safe to say that hospitals of our size take care of home districts from which we get the middle group of people. They come to us tired mentally and physically. It is safe to assume that most of the patients who go to the large hospitals have really not that finer sense, that sensitiveness of these middle class people. In the middle class you get the school teacher and social service worker, and so on. The hostess is nice in the big hospital, but she is invaluable in the hospital of medium size.

MISS CURTIS: To get the trustees interested, we have monthly trustees' meetings, and occasionally an executive committee meeting. Some of our trustees are very much interested; but I am sorry to say the executive committee is conspicuous by its absence. I think it would be invaluable if we could get hospital trustees to come to these meetings and get an insight into what the Hospital Association is doing. They are always very much interested when we go back and tell them about the subjects discussed. They have a good many interests, of course; but I think they are very much interested, and willing to do what they can. We have twenty-six actually interested, and others more or less so. The trustees meet at the hospital once a month, and the meeting is usually pretty well attended.

THE CHAIR: Dr. Rappleye gave us a short account last year of the work of his Commission, and in order to keep abreast of the progress in medicine, and to know what the Commission is doing, we have asked him to speak to us again this year.

DR. W. C. RAPPLEYE, Director of Study, Rockefeller Foundation, New Haven, Connecticut:

Last year, as Dr. Hersey said, I had the opportunity to tell you a little about the plans of this Commission on Medical Education; this year I want to tell you what progress we are making. I designated some of the problems with which medical practice and education have contact, and I should like to make clear that the Rockefeller Foundation has something to do with us. We are organized by, and supported by, the Rockefeller Foundation. The various groups have been separated and we have secured a commission in medical licensure and public health. Our preliminary report is available, and is sent to any one who would like it. We have made no recommendations, and have assiduously avoided making recommendations so far. There were about 20,000 applications for admission to the schools of medicine last year, and only 5,200 were accepted. It turns out that this large number is due to multiple applications, that is, we have records of one man who was rejected by nineteen different schools; there was an average of about 2½ applications per man. So the enormous list of applications we found to be due to multiple applications. As a matter of fact only 8,300 applied for the 5,200 positions. We found on studying the graduates that about 93% were associated directly with clinical medicine in one capacity or another; 40% of recent graduates limit their practice; 50% go directly into specialties. Some hospitals are taking on early mental cases, incipient tuberculosis, etc. We asked directors of hospitals as to whether they thought hospital facilities were adequate. Most of them felt that in maternity work facilities were reasonably adequate, but not in incipient tuberculosis, nervous disorders, and contagious diseases. Another interesting point is the number of doctors to the population. We found that the present ratio of physicians to the population is declining, and will continue to decline until 1965; the number of people per doctor will be on the increase. Most people are satisfied that there are enough doctors with a ratio of one doctor to 890 persons. In 1909-1910 there was an over-production. The average age limit of physicians in active practice is 65. Page 40 of the Report shows that the ratio of physicians to the population must decline up to 1965. The age of students graduating from the medical schools is later than in former years, and there is an increasing length of pre-medical training. In the old days they were trained in three years; now it takes seven or eight.

Previous to 1910, many men went into the practice of medicine on leaving the medical school. Last year the average age of graduation was within a fraction of twenty-seven years, and there must be added the years of internship. So the question is raised whether there will be enough physicians for the population. It may be that the control of typhoid and other communicable diseases will lessen the need of physicians. There is now a good deal of intensified medical treatment; and we may not have a satisfactory number of men in general practice.

REPORT OF THE COMMISSION ON MEDICAL EDUCATION

Last year at the Hartford meeting of the New England Hospital Association I had the opportunity of telling briefly the history and plan of the Commission on Medical Education, and I am very glad to come before you again this year to report the progress we are making and more particularly to discuss some of the general problems with which our study is coming in contact.

We have gone on the assumption that medical education concerns itself primarily with the qualifications and preparation of students to begin the practice of medicine and that the basic course should be the training foundation as well for those who desire to go into one of the specialties later, into research, public health work or medical education. Furthermore, the basic course should serve as the ground-work for the continuing self-education which is so essential for the physician if he is to meet in any satisfactory degree his responsibilities in medical practice.

Our first effort was to secure data which would throw light on the needs for medical services of various kinds in different communities. This we secured by a study of the actual health needs of individuals as determined by the results of the draft-board examinations, from data assembled by insurance companies, the Life Extension Institute, the examination of large numbers of school children, the examination of industrial employees and from other sources of this character. The material so assembled gives a fairly clear picture of the actual health needs, regardless of whether those needs are being met. In addition we secured a sampling of the daily practice of over five hundred recent graduates who are doing general practice in communities of 50,000 population or less, in twenty-six states and provinces. This gives us a good picture of the demands that are actually being made for medical service, and an analysis of 20,000 patient-visits showed that approximately 55% of these visits were in the physicians' offices, about 35% in the patients' homes and about 10% in hospitals. Further study of the data reported showed that about 75% of the office visits were for minor surgery, upper respiratory infections, general medical and venereal diseases; 90% of the home visits were due to respiratory infections, general medical and contagious diseases, obstetrics and minor surgery. In the hospitals about 55% of the patients were surgical, 30% medical and 15% obstetrical.

Our idea in securing the distribution of needs and demands for medical service was not with any thought that the basic course in medicine should be designed only in relation to these needs, for it is quite evident that many of the important problems are in the small minority of other complaints, and many of the essential problems of medical practice cannot be indicated by such statistical studies. We felt, however, that a picture of the actual demands of practice should be kept in mind. Our studies were compared with a sampling of the records of over 900,000 patients seen under the National Health Insurance Act of Great Britain, and with 5,400,000 out-patient visits in fourteen of the large cities outside of New York State and 256 clinics located in that State. Further comparisons with absenteeism in industries, which correspond, incidentally, with about 80% of the demands being made on the practitioner, and similar comparisons were made.

The study points rather clearly to the fact that over 90% of the demands for medical service are the demands of individual patients and are illnesses which cannot be controlled primarily from community or wholesale methods. It emphasizes particularly the individualized and personal character of most of medical service.

The Commission has also made further studies on the distribution of physicians. So much has been written and said about this question that everyone familiar with the problem is aware of the fact that the economic and social factors are probably determining and that much of the practice of small communities, at least in those near the large cities, is now being done by physicians located in the cities. The telephone, the automobile and good roads have greatly extended the radius of practice and the increased use of hospitals has tended to centralize practice in larger communities. There has also been a great increase in the amount of office as well as hospital practice which in turn has considerably reduced the proportion of "domiciliary visitation" in practice. The trend toward centers of practice is, of course, removing local resident medical service from small and rural communities and to some extent is removing adequate medical service from those living in such communities who are unable or unwilling to pay for such services from a distance or who are unable to go to the medical center. The "center" tends to skim the good-paying practice from a considerable area. Adequate transportation facilities are correcting some of the inevitable ill effects of cen-

tralized practice, however. The extension of modern hospital facilities into smaller communities is rather rapidly decentralizing the centers of practice also and in a short time some of the large problems of small-community practice will be solved.

There are certain trends in medical practice which have considerable significance in relation to the ways and means by which medical services are to be made available to the population and to individuals. A study on specialization made partly through our organization showed that about 40% of recent graduates limit their practice to a specialty and that close to one-half of those who do limit their practice to a specialty do so without a previous experience in general practice. It is quite apparent that because of the enormous growth in the knowledge of the causes and treatment of disease and in the increasing technical skill required in treatment of many of them, specialization to a certain degree is inevitable. It is obviously impossible for an individual to master all branches of medical science and practice, and a division of labor can be the only answer. Specialization has been developed in certain sections of the country, at any rate, with a commercial flavor. Many of the recent graduates are going into the specialties because the economic return is easier, and certainly it is far more convenient to practice a specialty than it is to do general work. Moreover, the public has been educated to seek the specialists for attention. The trend toward over-specialization in medicine is probably one of the outstanding current problems and this is particularly true in the concentration of specialists in the large cities where at the present time about 25% of the doctors limit their practice to a single specialty. This compares with 2% to 3% who limit their practice in communities of 10,000 or less.

In any form of division of labor there must necessarily follow a certain coördination of effort, which is represented in the development of hospital and clinic facilities throughout the country. Furthermore, the necessity of highly technical procedures of surgery, metabolism, laboratory determinations, X-ray work and of intensive nursing—particularly in the major and serious illnesses—have made it necessary to develop hospitals. The hospital is also extending its function rapidly beyond the realm of curative medicine into the field of preventive medicine. Probably the next greatest change in medical teaching and in medical service will be in the emphasis on prevention. Much of prevention in medicine is dependent upon early diagnosis and treatment. The hospital, as the community center for technical services and personnel, is sure to become and in many instances has already become the key in the program of preventive medicine, particularly as it relates to the non-communicable and non-community types of illness which, as mentioned earlier, represent such a large fraction of medical needs. The organized public health efforts will continue to control environmental diseases and will continue their efforts and activities in public education regarding many of the social, economic, industrial and other factors which have a bearing on disease; and hospitals and clinics, with their individualized, personal application of medical science, will become the key in any form of combined curative and preventive medicine. This probably is going to be especially emphasized in the out-patient and clinic services that are coming to be more generally established in conjunction with general hospitals.

Practically all medical students before they are licensed to practice medicine complete an interneship in a hospital. These students have become accustomed to and dependent upon hospital diagnostic, nursing and other facilities and are reluctant to practice medicine where such facilities are not available. In our study of the demands for medical practice we asked the question, "Is your community adequately provided with hospital facilities?", and the following responses were received:

Hospital Facilities	*Considered Adequate*
Surgical	72%
Medical	69
Maternity	63
Chronic and convalescent	44
Tuberculosis	37
Incipient nervous disorders	32
Contagious diseases	26

It is well known that in many communities there is a lack of hospital facilities and there is considerable belief that the distribution of physicians in the future will to a large extent follow in the wake of the distribution of hospitals. There are certain qualifications necessary in thinking of the extent to which hospitals may be distributed, but every community of reasonable size ought to have available its own unit of hospital service, and by hospital service is not meant alone a hotel for sick people, with even a modern operating room attached thereto, but a hospital in the sense of a diagnostic, therapeutic, professional unit serving as the center of medical practice, preventive medicine and of health activities.

The probable increase in the ratio of population per physician during the next twenty years together with the increasing utilization of medical services for early diagnosis and treatment, for the treatment of minor complaints, for periodic medical examinations, for infant and child guidance as well as the widening of medical services in psychiatry, industry, schools, etc., point to the importance of securing the maximum effective use of the physicians' time. While there are many features which promise to increase certain demands in practice,

there are others which have and will further reduce the demand, particularly the control of typhoid fever, malaria, hookworm, diphtheria and other communicable and environmental diseases.

We have been attempting to bring together information about other conditions of practice involving specialization; the various methods of coöperative practice; the increasing degree of hospitalization and office practice; the shift in the duties of the general practitioner to that more essentially of internal medicine and pediatrics as the base of medical practice; the growth of preventive medicine in the form of periodic medical examinations; the growing intimacy of public health work, the activities of voluntary health agencies and of medical practice; the extension of various forms of industrial, school and group medicine; the growing use of non-medical assistants in laboratories; home nursing and other fields—largely to bring back into the basic course some definition of the larger ramifications of medical practice in the community. This, it is hoped, will give the medical student and prospective practitioner of medicine a great deal more insight into the type of responsibility and the type of contact which he is likely to have in medical practice. At the same time it should bring to him a realization of the very large opportunities which he, as a trained technical practitioner of medicine, may have in the shaping of public opinion and in the guidance of sound health work in the community in which he will practice.

Let me digress one moment to touch upon another question, and there are many which I have not touched upon in this brief paper. I refer to the question of providing medical services for the large proportion of the population of moderate means. At the present time there is active discussion not only among medical and hospital groups, but among politicians, economists, industrial leaders and others on this question of providing adequate medical services at a cost which can be met by the average individual of moderate means. It is quite evident that the great increase in the cost of modern medical services is due almost entirely to the enormous expansion of what we consider to be adequate medical service. This is represented largely in the development of hospitalization, which in its very nature must be expensive, and in the great expansion of laboratory, X-ray and other technical services of this character, as well as the high degree of specialization which it is alleged is necessary to render proper service. A number of hospitals are now being built and present institutions are being fitted out to make special provision for this particular group of the public to whom serious illness, surgical operations or a period in the hospital even for diagnosis may be so expensive as to completely disrupt the economic stability of their homes and present to such families a rather serious financial crisis. The suggestion of medical and hospital insurance is again heard. A large number of industries are already working on this plan, particularly for ambulatory patients, and we shall probably see in the next decade a considerable change in methods of financing certain phases of our hospital, clinic and medical practice.

The chief function of the Commission on Medical Education, of course, is in connection with the training of students so they may be not only competent to begin the practice of medicine. We have been approaching the question not so much from the details of curriculum or of pre-medical requirements or of state licensing board regulations, but have thus far been concerned chiefly in getting as clearly as possible a visualization of the needs and opportunities of medical practice of the future. Every indication points to a very much increased responsibility of hospitals not only in the cities but in the smaller communities in this program of medical service. Through the necessary coöperation of practicing physicians with nurses, social workers, hospital administrators, lay boards and the public, the physician must in the future be clearer regarding his function as a professional worker with a large community responsibility. As time goes on the physician must more and more assume obligations in the guidance of community policies in relation to health matters, and it is quite evident that every trend at the moment is toward increasing the importance and the opportunity of the hospital as the organized central unit in preventive as well as curative medicine. It is this importance of coördinated and coöperative medical practice in hospital and clinic units that we are trying to formulate and emphasize in the basic training of the physician.

Discussion

The Chair: Dr. Washburn, have you anything to say on this matter of providing adequate medical care and facilities for the large proportion of the population of moderate means?

Dr. Washburn: I have read this volume referred to by Dr. Rappleye. It is an excellent report, and covers a vast field. I don't feel that I am qualified to discuss it; I certainly am not an expert on medical education. I am not qualified to discuss many of its ramifications. But there are one or two points in Dr. Rappleye's report upon which, perhaps, I may speak. Dr. Rappleye mentions the report of Mr. A. Flexner, made to the Carnegie Foundation in 1910. As a result of Mr. Flexner's report many schools with small endowments and facilities were closed. Now that was an excellent thing to do; yet Dr. Rappleye also calls attention to the dangers attendant upon it, the bad things, as well as the good, that may come from it.

Among those bad things, I think, is the increase in the number of people with no medical training, people from faddish schools, like chiropractic and others, who have settled in places formerly filled by men who at least had some sound medical education, though not as extensive as they should have. It was that report of Mr. Flexner that closed schools like Bowdoin and Dartmouth. Those places trained a type of men needed—they were largely farm boys, and many of them were excellent men; and they were available for certain positions that now go begging to some extent. Take Government services,—it is very difficult for the army and navy and public health offices to find men enough of the right type to fill their positions; and positions of hospital administration, which perhaps are not as well rewarded as some other branches.

As to the groups in the community, the rich and the poor, and people of limited means, I believe we shall not only care for them within walls, but shall have clinics for them all. Possibly the clinics for the rich will be apart from hospitals, but I am not so sure of that. I am very sure that as the years go by the clinics now utilized in the morning for the poor will be utilized in the afternoon for people of limited means, so that the great facilities accumulated in hospitals will be used by people not sick enough to go to bed, but in ambulatory state. I dare say that will decrease the number of doctors needed in one way, but it will broaden and widen the opportunities to take care of the sick; so that the number of doctors needed, in my opinion, will not lessen.

Dr. Rappleye: Dr. Washburn has spoken of the broadening of the uses of the general hospital, and I think he is absolutely right in saying that the general hospital in the future is not going to care for medical and surgical cases alone; but it is going to care for cases of incipient insanity, incipient tuberculosis, and venereal disease, and will go on into other lines. Many hospitals now have no obstetrical department, which they must and will have; some have no contagious department, and they must and will have one, as the years go by and as money is provided. So that these hospitals will present much broader and more complete opportunities for instruction of medical students, as well as performing much greater and broader service to the community.

A Member: Dr. Rappleye has referred in his Report to the licensure of physicians in different States, and the standards they have set up. Some of them have set up standards which, in the opinion of some of us, have done as much harm as they have done good. For instance, the board of licensure in Pennsylvania has a requirement that no physician shall be registered in that State who has not had rotating hospital service. Now some of the large hospitals in the country, like the Johns Hopkins, the Massachusetts General, the Peter Bent Brigham, do not believe in rotating service; they think it is better for the patient and better for the doctor to have sixteen months' continuous service than to have three months' medical and three months' surgical, and so on, and be no good at anything. So a graduate of the Massachusetts General Hospital cannot practice in Pennsylvania unless he finds some way of getting around the law, or takes an extra service as an interne in their hospitals.

The Chair then announced a change in the program; that inasmuch as Mr. Mays, whose address was appointed for Friday morning, could not be at the meeting Friday, he would read his paper at this time:

Mr. James R. Mays, Superintendent of Homeopathic Hospital, Providence: I think you will all agree with me that the hospitals are supported by funds contributed by the public. That should not be construed to mean that each hospital should be supported by a few wealthy people of the community. The support should be distributed as evenly as possible, down to the man who can afford to give only one dollar a year. How can this best be accomplished? Of course we have the Community Chest in some places; but that is never called upon to raise funds for expansion, and in some communities hospitals are not in the community chest, as happens to be the case in Providence. Therefore, we must not only depend upon the public for maintenance support, but in every instance must depend upon the public for funds for expansion. I am going to confine my talk entirely to a consideration of the best means of securing funds for expansion. There are three questions that enter into the minds of trustees when they are considering expansion:

(1) Will the public respond to an appeal?

(2) Should trustees themselves attempt a campaign, without professional assistance?

(3) Should professional assistance be secured?

My experience and the experience of others have been that it is exceedingly wise for trustees to have professional direction.

The Chair: We have listened to a very interesting paper. Most of the people here, I think, have been through similar experiences, and ought to take part in this discussion.

Dr. Young: My experience is rather the reverse of what Mr. Mays has told you. I know from what he said that they have got results there. My institution was at about the lowest level a hospital could reach and still keep its doors open a year and a half ago, and we determined to get money in some way and when that determination was made known we were besieged by a dozen or twenty different firms of

campaign managers. Several came to see us, and one made a careful survey of the amount they thought they could get. Our board of managers thought they would see what they could do without the firm, and since that time we have raised more than the firm said we might be able to get. It was done through the almost unaided efforts of one man who had put his heart and soul into the work, and went only among those from whom he thought he could get $10,000. He didn't always get ten thousand, but he got several large amounts. We have not been to the general public since. I think this summer we shall put on a campaign again. In Maine we have a great many summer visitors, and the appeal was made to men of wealth born in Maine, and who have an interest in Maine, and money came from that source and swelled the amount. We are probably more fortunate than those who don't live in a summer resort; I don't mean to detract from what Mr. Mays has said they did.

MR. MAYS: You are going to put on a campaign this summer?

DR. YOUNG: Yes. The firm won't put it on. We have done what they didn't want us to do, and they won't take it.

THE CHAIR: Is there any further discussion as to how to raise seven hundred thousand dollars or more?

A MEMBER (woman): We are trying to raise $400,000 this fall, and we are going to have a financial group take care of it.

DR. HERSEY: We are going to have a campaign. My board is not yet convinced that it is a good idea to have a paid group to handle it. I think there is a good deal to be said on both sides. I do believe that it is a help to have outside experience brought in where a large amount is to be raised. A great deal of experience can be capitalized. I imagine we shall do something like what the Y. M. C. A. is doing at the present time. They went out for $608,000 for the Y. M. C. A. building, and they felt that if an outside group came in, they would merely take the cream off the cards, and take advantage of knowledge which citizens already had; so they went out and took the cream themselves, and then got a campaign to clear off the small cards. That does away with considerable of the objection to having an outside group come in.

A MEMBER: The House of Mercy in Pittsfield put on a professional campaign for a Nurses' Home. They started out for $250,000, and in three days they had $325,000. They gave two years to pay it. It is all paid but $125. They figured the cost was about 4%.

(To be continued)

ETHICS OF MEDICAL NEWSPAPER WRITING

DR. CHARLES A. L. REED was president of the American Medical Association at the time of its reorganization. He, later, was on the committee that formulated its "Principles of Ethics." He is now devoting himself exclusively to literary work, his last book, "The First Estate," just from the Stratford press, being a novel with a scientific motif. But, in addition to writing books, he writes an article on health and success every day for the King Features Syndicate, New York, which, in turn, furnishes the series for simultaneous publication in many newspapers of the United States, Canada, and foreign countries. Dr. Reed's views on the ethics involved in his newspaper work are, therefore, of interest. In a recent interview he said:

"No, I have not 'retired.' I am now practicing 'educational medicine.' I am 'carrying the message to the masses,' as it were. It is true my articles are having a phenomenal run. This, in large part, is due to the influence of the medical profession. You see, I had long wanted to do just what I am now doing. The opportunity came to me unexpectedly. I saw, however, that newspaper writing could not be ethically combined with a fee-earning practice. Each was entirely ethical within itself but the two wouldn't mix. The combination spelled 'advertising' with the worst form of unfair competition. My practice at the time was distinctly national. But, without hesitation, I announced to the entire medical profession that I would accept no more patients—and I haven't. Now, in spite of the fact that I have never published my home address in my articles—another fine ethical point—I do receive through my many newspaper offices literally hundreds of letters asking for treatment. In no single instance have I ever given it. The experience, however, shows what I mean by 'unfair competition.' On the other hand I have used my articles, now numbering well on to two thousand, to create a higher appreciation of the medical profession by the general public—a better understanding between the two. This is a thing that I have been and am doing much more effectively, so far as publicity methods are concerned, than the profession in any locality can do in its own behalf.

HOSPITAL SHIP COMMISSIONED

THE Navy Department has issued orders placing the hospital ship U. S. S. Mercy in full commission from December 1, 1927, to March 31, 1928. The Mercy is in reduced commission at the Philadelphia Navy Yard. When commissioned she will report for duty and will serve in Train Squadron One of the Fleet Base Force.

On March 31, 1928, the vessel will be returned to the navy yard at Philadelphia and again placed in commission in reserve. The Mercy will go to southern waters with the vessels of the Scouting Fleet to act as a floating hospital. The vessels of the Battle Fleet are served by the hospital ship U. S. S. Relief.

Case Records
of the
Massachusetts General Hospital

ANTE-MORTEM AND POST-MORTEM RECORDS AS USED IN WEEKLY CLINICO-PATHOLOGICAL EXERCISES

EDITED BY R. C. CABOT, M.D.

F. M. PAINTER, A.B., ASSISTANT EDITOR

CASE 13431

CHILLS AND FEVER

MEDICAL DEPARTMENT

First Admission. A Swedish tailor forty-four years old came to the Emergency Ward June 10 complaining of pain in the left inguinal region with a lump at times in the inguinal canal. He complained also of fainting. It was thought the history might not be entirely accurate because of slight language difficulty.

A year before admission he began to have slight pain at times in the left lower abdomen, especially when standing and on exertion. This gradually became worse. A lump which descended into the left inguinal canal gradually increased in size. There had never been incarceration or any difficulty in slipping the lump back into the abdomen, and apparently it had never gone far into the scrotal sac, but the pain and bulging had caused the patient some inconvenience and a good deal of worry. In spite of a large appetite he had lost forty pounds in the past year. During the year he had been somewhat dizzy at times. Recently he had had a few nosebleeds. Two days before admission he noticed some black specks before his eyes. The day before admission he fainted twice, once while walking to the hospital. He had never fainted before but once, three years before admission.

His father and one brother died of cancer.

The past history was negative except for much gas at times. His wife said he had been much worried by fear of cancer, and during the past year for the first time had been taking some alcohol. His physician said he had made fairly excessive use of it.

Clinical examination showed a well nourished, cyanotic man with very foul breath suggesting uremia. Teeth bad. Marked pyorrhea. Throat and tonsils markedly injected. Heart not enlarged. A loud rough systolic murmur at the apex and the base, loudest at the base. No diastolic. Slight dullness at the base of the right lung. (Liver?) Diaphragm fixed. Liver 4 centimeters below the costal border, smooth, not tender. Reducible left inguinal hernia. Pupils and reflexes normal.

Urine 48 to 140 ounces, specific gravity 1.012 to 1.022, no albumin, a slight trace of sugar at one of four examinations, 3 to 10 pus cells per high power field. Blood: 6,800 to 7,250 leucocytes, polynuclears 68 per cent., hemoglobin 70 per cent., reds 3,160,000, smear normal. Nonprotein nitrogen 32 milligrams. Wassermann negative.

X-rays of the teeth showed a large area of bone absorption around the root of one molar, probably an abscess, and a buried root in the region of another molar. A third molar was a decayed tooth with an overhanging filling. Plates of the urinary tract showed no definite variation from the normal. Plates of the chest showed enlargement of the hilus shadows and rather coarse mottling extending upward and outward from the lung roots along the lung markings.

For the first three days temperature 98.2° to 101.7°, June 14 99.4°; temperature otherwise not remarkable. At admission pulse 105, respirations 29; afterwards pulse and respirations normal.

By June 12 the cyanosis was gone. The patient still did not look well. No lung signs were found to support the X-ray findings. A surgical consultant advised a truss or operation for the hernia. The patient chose the truss. June 22 he was discharged.

History of interval. After leaving the hospital he felt perfectly well until April. Then he began to feel a little run down, though he had no definite complaints. Four weeks before his readmission a doctor called his attention to the fact that his abdomen had grown larger. In the middle of April a pimple appeared on the end of his nose. After a day or two he suddenly had malaise and chilly feelings. He went home, had a shaking chill and felt very ill, with general aching and fever. A physician said he had erysipelas. In a day or two his nose showed much white, very tender swelling extending all over his face, ears and scalp. In a few days the swelling went down and the fever left him. In two weeks he was entirely well. Two weeks and a half before his second admission, while he was still in bed, he began to have sharp constant pain in his left leg and both feet, most marked on the external aspect of the leg but extending from the thigh to the foot, increasing for the next few days, then continuing at its maximum. Motion of the leg, weight bearing, sitting up or lifting his head and shoulder from the bed aggravated it. He could not lie on his left side. Hot water bags relieved it. Aside from the pain he felt perfectly well and as strong as ever. He said that before his first admission he had occasionally had a little blood on the outside of the stool. Since that time he had had it only once or twice. He had had no known loss of weight or strength.

Second admission, May 15, eleven months after his discharge.

Clinical examination showed a very pale, sallow man, not well nourished and obviously ill,

lying flat on his back in no discomfort as long as he was in the position of choice with his left hip lifted slightly off the bed. He could roll on his right side with pain on moving, but was comfortable when once in position. He could put no pressure on the left hip. He could get up slowly and hobble about, the left leg bearing weight. The skin was dry and pale, the sclerae icteroid. The abdominal veins were slightly distended. The hair was scanty and moth-eaten,—recent loss. Teeth carious. Pyorrhea. Tonsils slightly enlarged. Glands in the left axillary group enlarged, pea to small acorn sized, discrete, not tender. Left posterior cervical chain definitely enlarged, pea-sized, discrete. Apex impulse of the heart not seen or felt. Left border of dullness 10 centimeters from midsternum, 2½ centimeters outside the midclavicular line, right border 1½ centimeters to the right, supracardiac dullness 3 centimeters. Sounds and action normal. Aortic second sound accentuated. A systolic murmur heard all over the precordium, loudest at the third left interspace, heard into the neck. No diastolic. Pulses normal. Artery walls thickened and tortuous. Systolic blood pressure: a faint pulse came through the cuff at 230, a loud pulse at 160; diastolic 75. Abdomen huge, pendulous and asymmetrical, enlarged and rounded on the right. Liver dullness 9 centimeters below the costal margin in the midclavicular line, not tender. Edge not definitely felt. Character of edge and surface not made out. Flatness in flanks, with shifting dullness and fluid wave. Left inguinal hernia. Unilateral shiny edema of the left leg, pitting up to the inguinal region. Skin of leg tense, polished. Pitting of right ankle and foot. Circumference of right calf 32 centimeters, of left 33. Rectal examination, pupils and reflexes normal.

Amount of urine normal, specific gravity 1.011 to 1.030, a very slight trace to a trace of albumin at 6 of 7 examinations, no sugar or bile. 1 to 8 leucocytes per high power field at all of 7 sediment examinations, 1 to 8 red cells at 4, hyalin casts at 4, rare to many granular at 4, waxy casts once. Renal function 0 at one test, 45 to 50 per cent. at two others. Blood at entrance: 20,200 leucocytes, 87 per cent. polynuclears, hemoglobin 50 per cent., reds 2,920,000, moderate achromia, marked anisocytosis and poikilocytosis with some tailed forms and a few macrocytes, occasional basophilic cells, no stippling. Platelets slightly reduced. Later examinations showed 8,600 to 28,000 leucocytes, hemoglobin 60 to 45 per cent., reds 2,920,000 to 2,770,000. Icteric index 2 May 15, 4 May 31. Stools negative at four examinations. Wassermann negative. Nonprotein nitrogen 34 May 25, 44 June 8. Fasting contents and test meal: 2 to 3 cubic centimeters of bloody fluid was removed in each case after 5 or 6 seemingly successful attempts at passing the tube. The patient was not able to sit up in bed. He was coöperative but exhausted by the battle with the tube. Contents not analyzed.

X-ray examination with a barium enema showed no evidence of organic disease of the colon. Examination with a barium meal was made in the recumbent position only and without the usual palpation. There were no filling defects suggesting organic disease of the stomach or duodenum. The bones of the pelvis and the lung fields showed no evidence of disease. The diaphragm was high, probably because of fluid within the abdomen. The kidney shadows were faintly outlined, considerably obscured by gas. No calculi were visible. The lumbosacral and sacro-iliac regions were negative. A small amount of barium was retained in the appendix.

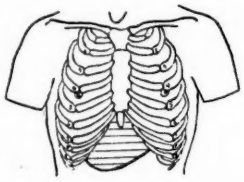
Orders. May 15. Rest in bed. Fluids ad libitum. Soft solid diet for two days, then house diet with extras for anemia. Blaud's pills 5 grains t.i.d. before meals. Morphia sulphate 1/6 grain s.c. p.r.n. every three hours for pain unless respiration falls below 15; then notify house officer. Aspirin and phenacetin each 5 grains every three hours p.r.n. for discomfort. Hot water bottles every hour. May 16, 17 and 18 aspirin and phenacetin 5 grains each. May 16 and 17. Codein sulphate half a grain s.c. or by mouth; if not effectual in one hour give morphia sulphate 1/6 grain s.c. May 18 and almost daily thereafter morphia in 1/6 to 1/4 grain doses s.c. once to three times. May 19. 2 cubic centimeters paraldehyde. Digitalis 4½ grain t.i.d. May 21. Magnesium sulphate 1 dram and a half. May 27. Luminal a grain and a half. If still awake in an hour give morphia 1/8 grain s.c. Codeia ½ grain s.c. May 23. Paraldehyde 2 cubic centimeters by mouth p.r.n. May 24. 1 ounce of sherry. Codeia 1 grain by mouth. May 28. Rub left leg lightly with alcohol. Apply Bender bandage; elevate leg on pillow with cradle over it. Ice cap to left femoral vein. May 29. Theobromine 15 grains t.i.d. for three days. Luminal 3 grains; repeat once if necessary. Ice bags p.r.n. May 30. Soapsuds enema. June 3. Ammonium chloride 25 per cent. solution, 1 dram 5 i.d. Digitalis 4½ grains at 8 and 10 p. m., 3 grains t.i.d. June 4 and 5; 1½ grains daily thereafter until toxic or pulse 60.

Until June 6 temperature 99° to 104° by rectum. June 6 and 7 temperature 100° to 101.1°, afterwards 100° to 104.3°. Pulse 60 to 158. Respirations 20 to 44.

May 17 abdominal paracentesis was done. 3,000 cubic centimeters of pale clear fluid was withdrawn, specific gravity 1.010, cells, 5,000 leucocytes, 170 red blood cells, 84 per cent. lymphocytes, 14 per cent. mononuclears, 2 per cent. polynuclears. Culture showed streptococcus viridans. Examination immediately after the tap showed an edge, almost certainly the liver, quite smooth and fairly sharp (?), as shown in the diagram. The visiting physician felt the spleen. The house officer could not feel it.

May 23 a puncture in the fourth lumbar space was practically negative. A neurological consultant reported: "The neurological symptom, i.e. burning pain, appears to be due to an irritative lesion of the lumbar roots as high as the first lumbar and as low as the fifth lumbar on the left. The tendon reflexes persist. No absolute sensory loss or palsy is apparent. The lesion is not confined to the sciatic nerve. Stretching nerves and movement of pelvis painful."

May 23 the right thigh measured 43 centime-



ters, the left 47, the right leg 31 centimeters, the left 32 centimeters. After May 28 the leg felt better. The abdomen was filling again. May 31 a Rosenthal bromsulphalein test was done, dose 2.9 cubic centimeters; after 5 minutes 50 per cent., after 30 minutes 10 per cent.

June 3 the blood pressure was 200/105. There was edema over the whole back. Digitalis was started. June 4 a heart consultant found the heart large and displaced upward. The sounds were short and rather poor except for the accentuated aortic second sound. There was a blowing systolic murmur at the apex and the left sternal border.

June 6 0.5 cubic centimeters of novasurol was given intramuscularly in the right deltoid. Next day the patient seemed to be growing rapidly worse and weaker. June 9 he was delirious and incontinent. June 12 he died.

Discussion

BY RICHARD C. CABOT, M.D.

NOTES ON THE HISTORY

A middle-aged man came for a hernia, and after being looked over decided that he would not have it operated on and went out. Whereupon he felt much better and got along very well for a year. The only notable thing in his first admission was an anemia not explained at that time,—3,160,000 red cells—the rest of the blood not going with that. I should have thought a mistake has been made in the red count if he had not turned up a year later with an anemia. The only other point recorded in the first hospital stay is that he was excessively alcoholic.

He left the hospital in June and says he was perfectly well until the following April.

NOTES ON THE PHYSICAL EXAMINATION

The record says "very pale and sallow," corresponding with a very marked anemia.

"The abdominal veins were slightly distended." We remember that we had an alcoholic history and apparent distension of the abdomen. He was tapped later, and there is no question that he had ascites.

The glands were probably of no importance I should say.

We have one leg generally enlarged and edematous; we have enlarged abdominal veins, and anemia, ascites, and a heart murmur. So much for clinical examination.

Let us take the forty-five to fifty renal function on the whole as important.

There is a well-marked secondary anemia. We have to find the cause.

The Wassermann is important in relation to his enlarged glands and the failing of his heart.

We did not get much information from the examination of the stomach contents.

Essentially I should say a negative result from the X-ray examination, and no reason to suspect the gastro-intestinal tract.

The orders were essentially various things given for pain, and some digitalis.

He has most of the time a continued fever, and it must be an important element in the case I think. The chart shows a fever which goes on three pages, practically never touching normal, averaging 101°, with a low pulse, averaging 70, the kind we often see in typhoid fever. With such a pulse we have certainly to inquire whether he has typhoid. I do not believe he has it. He had a high white count. He had fluid in the abdomen. His leg could be accounted for by typhoid, but nothing else that I see. I do not believe that we need seriously to consider it. Apparently they did not do a Widal.

Why they did not do a blood culture I do not know. Having found this organism in the ascites one would think they would try fishing in the blood; but apparently they did not.

I do not see that the neurological examination throws much light.

The heart is displaced upward, naturally enough, by the fluid in the abdomen.

DIFFERENTIAL DIAGNOSIS

We know he had ascites; we tapped him and saw it; we believe he had a big liver and spleen; he is said to be alcoholic. We naturally guess that he had cirrhosis. His anemia might be as a result of that. But that certainly cannot be all, because cirrhosis does not explain such a fever. The question is as to the cause of the fever and of the swollen leg, which might both be due to the same cause, an infection which causes thrombosis. As to the interpretation of the neurological examination I do not get any light.

It is natural to guess that he had a streptococcus infection of his blood as well as of his abdominal fluid, and that his heart murmur was due to that, in other words, that he had in addition to a cirrhosis a subacute bacterial endocarditis. With that diagnosis it is possible to suppose that he had a pylephlebitis which might have

accounted for his ascites, this pylephlebitis being part of a general sepsis. I should suppose, however, that the case was too long and was not stormy enough to go with such a lesion as that, which ordinarily runs a rapid and virulent course. And I never knew a case in which the enlargement of the abdomen was the first symptom of pylephlebitis without previous pain in that region. So far as we know he never had pain.

The two main things I am thinking of are a cirrhosis of the liver and a secondary infection, and a "primary" septic infection including the liver,—a "primary" septicemia of unknown cause.

Now as to a possible cause for the infection, whether explaining all the symptoms or secondary to the liver, there is a big root abscess found around one of his teeth. But nothing was done about it, so I suppose here they did not think it of great importance.

As to the condition of the kidneys, there is nothing except the waxy casts to make us think there is more than any infection might cause. On the whole I am inclined to think they are the kidneys of infection.

DR. MALLORY: I should like to ask whether the zero renal function test came before or after the others?

MISS PAINTER: It came before. It was on the 19th. On the 25th the renal function was fifty and on the 27th forty-five.

DR. CABOT: It is a queer case. I have a feeling that we are going to "come a cropper" on it, but I do not know any more to say than I have said.

CLINICAL DIAGNOSIS (FROM HOSPITAL RECORD)

Hypertensive heart disease with congestive failure.
Cirrhosis of the liver.
Phlebitis of left leg.

DR. RICHARD C. CABOT'S DIAGNOSIS

Cirrhosis of the liver.
Subacute bacterial endocarditis.
Pylephlebitis.
General septicemia.

ANATOMIC DIAGNOSES

1. *Primary fatal lesion.*

Toxic cirrhosis of the liver.

2. *Secondary or terminal lesion.*

Rectovesical abscess.

DR. MALLORY: I do not think you have been given a fair chance to diagnose this case, as almost all the clinical data given were wrong. The heart was not hypertrophied, it was merely displaced upward. It was normal in size. The liver, said to be nine centimeters below the costal margin, was exactly at the costal margin and weighed 1450 grams, a normal amount. The spleen weighed 250 grams, a very slight hypertrophy. It might possibly have been palpated but not at all certainly so.

The man did have cirrhosis. On the other hand it was not an alcoholic cirrhosis, and I think at one point the history is correct in stating that he had become used to alcohol only during the past year. Even though he used it excessively during the year, as is suggested, cirrhosis is not developed in so short a time. There is no trace of hyalin degeneration, and I think we can quite certainly rule out an alcoholic etiology. It is the type of liver that we sometimes call "toxic cirrhosis," which I think traces back to an old central necrosis on a basis of infection or ingestion of some toxic substance. Remote possibilities are chloroform, phosphorus, carbotetrachloride. A toxic product of some infectious organism is more probable.

His kidneys showed some pathology. They weighed nearly 600 grams, a marked increase in size, but it was an acute tubular degeneration which must have been of short duration. That was why I asked about the renal function test. It might possibly have explained a terminal renal function test of zero. But I imagine the process is more recent than the dates of any of the renal function tests.

The cause of his fever was a very large abscess on the left side of the pelvis partially surrounding the bladder and the rectum, extending out beneath the inguinal ligament and into the ischiorectal region. It is rather interesting in this connection that if I remember right this is the third case this year which has been either definitely or suggestively diagnosed sciatica in which we found a large pelvic abscess entirely unsuspected by the clinical examiners.* Have you run across any such cases, Dr. Richardson?

DR. EDWARD P. RICHARDSON: Yes, I have; in association with appendicitis I have seen abscesses in the pelvis.

DR. MALLORY: Except in the ischiorectal region this did not point near enough to the surface to have been made out by external examination, but it seems to me it could have been made out easily by rectum in each of the cases I have seen. In the earlier course the sciatic nerve is involved in the abscess and that may possibly cause the referred pain farther down the nerve.

DR. CABOT: It would be interesting to know if we could whether the neurologists had this in mind. They on the whole came nearer to it in one of their suggestions.

DR. MALLORY: Yes. As a matter of fact one of the other cases was missed by the neurologists. They missed nearly a pint of pus.

DR. CABOT: Could this case come under the heading of a healed yellow atrophy? I have seen a recent article about that in the *Journal of the American Medical Association.*

*See Case 13113, March 17, 1927.

DR. MALLORY: Yes; that is exactly the type to which I think this belongs. It seems very probable that there is no essential difference, except in extent, between the acutely fatal cases of acute yellow atrophy and the cases of relatively mild central necrosis that we see so commonly as a complication of infectious diseases. We can get all degrees of necrosis, and it is not necessarily a universal process affecting the center of every lobule. One portion will be more affected than other portions. And I am quite sure that many of these cases do not succeed in completely regenerating the liver tissue, and a number are followed by cirrhosis.

The characteristic of this type of cirrhosis is that the damage is presumably done once for all, and we do not get a progressive process.

A PHYSICIAN: Do you think that culture of the ascitic fluid means contamination?

DR. MALLORY: It can mean two things,—either contamination or that the organisms were actually there and producing no symptoms. I think that is not impossible.

DR. JOHN D. CAMP: I do not think the X-ray films add much to the discussion. They show the high diaphragm. The lesion in the tooth was in the original examination. It is apparently an abscess around one of the lower right molars. Streptococcus viridans is supposed to be common in dental abscesses. Whether or not that has any relation to the culture from the ascitic fluid I do not know.

DR. CABOT: One would like to know the order of events here,—whether the liver lesion was first.

DR. MALLORY: By all means. The liver lesion must date back years, only recently producing symptoms as shrinkage gets greater and greater, and the pelvic abscess I think is a relatively recent affair, a matter of a month or two, about the period of his acute symptoms and fever.

A PHYSICIAN: What is the source of that abscess?

DR. MALLORY: It is not uncommon for patients with cirrhosis to develop secondary infections almost anywhere. They have a definitely reduced resistance to infection, and I think it is pure accident where the organisms happen to settle and start up an abscess.

DR. RICHARDSON: In the presence of ascites one would not expect an abscess, but a general dissemination of infection and death from peritonitis.

DR. MALLORY: Very likely, I think, it started as an ischiorectal abscess and worked around.

DR. RICHARDSON: This was not an abscess in the pelvis but of the pelvic wall; so it was entirely separate in the beginning, at least from the peritoneum?

DR. MALLORY: Yes, always extraperitoneal.

CASE 13432

A CASE OF GASTROCOLIC FISTULA

SURGICAL DEPARTMENT

First admission. An Irishman fifty-six years old, a Street Department foreman, entered July 21.

A year before admission he first noticed a small swelling in the epigastrium. It was occasionally very painful. It had not increased in size. Very recently his appetite had been poor. He had lost some weight.

Five of his children were said to have or to have had tuberculosis. The patient's past history was negative.

Clinical examination showed a fairly well developed and nourished man in distress. There was evidence of loss of weight. The skin of the body and limbs showed extensive scattered areas of psoriasis. Teeth poor. Marked pyorrhea. Heart markedly enlarged to the left and downward. There was a distinct rub or rough murmur, best heard at the apex. There was bradycardia and an extrasystole every six to ten beats. The sounds were of poor quality. The artery walls were palpable, the brachials moderately tortuous. The abdomen was moderately spastic in the upper half. Palpation was unsatisfactory, but there was a sense of resistance which was slightly more marked in the epigastrium. The whole of the upper abdomen was distinctly tender. There was a small bulge about halfway between the umbilicus and epigastrium, not well defined. Rectal examination showed a few external hemorrhoidal tabs. The genitals showed many scales and crusts of psoriasis. The pupils and reflexes were normal.

Before operation amount of urine not recorded, specific gravity 1.020 to 1.030, no albumin or sugar, a few leucocytes and a rare hyalin cast at one of three sediment examinations. Renal function 45 per cent. Blood: 11,000 leucocytes, 78 per cent. polynuclears, hemoglobin 75 to 80 per cent., reds 4,800,000. Non-protein nitrogen 45.9 milligrams. Wassermann negative. Fasting contents of stomach: free hydrochloric acid 0.073 per cent., total acid 0.131 per cent. Test meal: 60 cubic centimeters, free hydrochloric acid 0.182 per cent., total acid 0.292 per cent.

X-ray. The stomach was active, suggesting irritability. There was no evidence of an organic lesion. The first portion of the duodenum was irregular in outline. The twenty-four hour barium column was at the beginning of the transverse colon, where it terminated abruptly. There was tenderness in the right upper quadrant suggesting pathology in that region.

Before operation temperature 95.8° to 98.4°, pulse 40 to 62, respirations 14 to 24.

July 28 operation was done. The patient made an extremely good convalescence. August 10 he was discharged.

History of interval. At his readmission he

gave a vague and probably not very reliable story, with considerable differences on different occasions. For about four years he felt very well so far as any epigastric distress, gas or sour eructations were concerned. He ate moderately but did not limit his diet. A year after the operation he found he had a right inguinal hernia. He wore a truss with fairly good results in relief from pain, although for a few months before his second admission the hernia gave him some pain on walking. Six months before his second admission he began to lose appetite and did not feel so well. Three months later his stomach gave him trouble and he had to avoid all meat and hearty meals. He began to have gas and suprapubic pain coming on half to three-quarters of an hour after meals and lasting several hours, not relieved by soda or food, even aggravated by the latter. At the time of his second admission the pain did not radiate and was not localized, but it was more or less constant, dull, gnawing, affecting the whole epigastrium and the umbilical region. (He gave the senior interne a quite different history of this, describing it vaguely as a dull ache just over the symphysis, apparently the pain from the hernia and aggravated on walking.) He was nauseated once seven or eight weeks before admission and vomited some dark brownish material, possibly coffee grounds. Soon after this he had diarrhea for a week. Since that time his bowels had been somewhat constipated. There had been no abnormal stools. His weight fell from 170 pounds to 135 pounds in the six months before his second admission. The loss was chiefly in the last three months. For a year after the operation he worked. Since that time he had done no work. He thought that fear of distress from food together with loss of appetite had caused his loss of weight. A month before his readmission for about a week his stools were almost black.

Second admission, April 20, four years and a half after his discharge.

Clinical examination showed a very emaciated man with very pale mucous membranes. A hard almond sized gland in the left axilla. Apex impulse of the heart not seen or felt. No enlargement to percussion. Sounds of fair quality. Artery walls much thickened and very tortuous. Blood pressure 100/50 to 135/100. A moderate sized right inguinal hernia, easily reducible. Under the right great toe a verrucoid elevated growth the size of a fifty-cent piece. Prostate slightly large.

Before operation urine normal except for one to four leucocytes per high power field in three of four sediment examinations, rare hyalin casts once and rare granular casts once. Renal function 35 to 40 per cent. Blood: 6,400 to 8,000 leucocytes, 63 per cent. polynuclears, 3,360,000 to 4,500,000 reds, smear normal except for reduced platelets, no reticulated cells April 25, 0.6 May 3. Non-protein nitrogen 26 milligrams. Icterus index 1. Wassermann negative. Stools gray at 2 of 5 examinations, clay colored at 1, guaiac negative at 4, questionable once, no macroscopic blood. Fasting contents of stomach: 12 cubic centimeters of mucoid material, no free hydrochloric acid, total acid 3, guaiac negative. Test meal: 8 cubic centimeters greenish material, no free hydrochloric acid, total acid 2, guaiac negative. The patient repeatedly coughed up the tube, so that the test meal observation was not considered reliable.

X-ray examination with a barium meal showed the stomach apparently normal. There appeared to be a projection from the outline of the jejunum. There was no tenderness over this. It was thought it might possibly be due to a small retained fleck of barium within the jejunum. Examination a week later showed the same area. Examination with a barium enema showed a considerable amount of gas in the colon, and definite delay in the midportion of the transverse colon, after which the barium flowed through the small bowel into the stomach. The cecum was apparently normal.

Before operation temperature 96° to 98.4°, pulse 44 to 70, respirations 15 to 23.

Throughout the night of April 24 the patient had severe generalized abdominal ache, mostly in the lower abdomen, relieved by a bowel movement in the morning. Four days later he had another fairly severe sharp pain in the right upper quadrant, without tenderness or spasm. He was put on a gastric régime, which he did not take well.

May 6 operation was done, with pre-operative and post-operative transfusions. The patient was in moderate shock after it, but by night had recovered. The following day he had pyrosis, combatted by sodium bicarbonate in small doses. There was faint peristaltic activity. May 9 he vomited. The temperature remained low. Gastric lavage produced 10 ounces of thick green material. He did well on a gastric régime. By the 11th there was active peristalsis. The lower abdomen was distended and tender. There was rectal tenderness. Productive cough continued. May 16 the sputum was blood tinged. May 17 a portable X-ray (see illustration) showed mottled dullness at both bases. The diaphragm was distinctly elevated on the left. There was a well defined gas bubble between it and the surface of the liver. May 18 he was feeling much worse, although the abdominal condition was improved. The respiratory rate was increased. There was dullness at the left base and bronchial breathing at both bases, almost egophony above. There were râles at both bases, especially at the left. The temperature was never above 99.6°. May 19 the patient died.

Discussion

BY EDWARD L. YOUNG, JR., M.D.

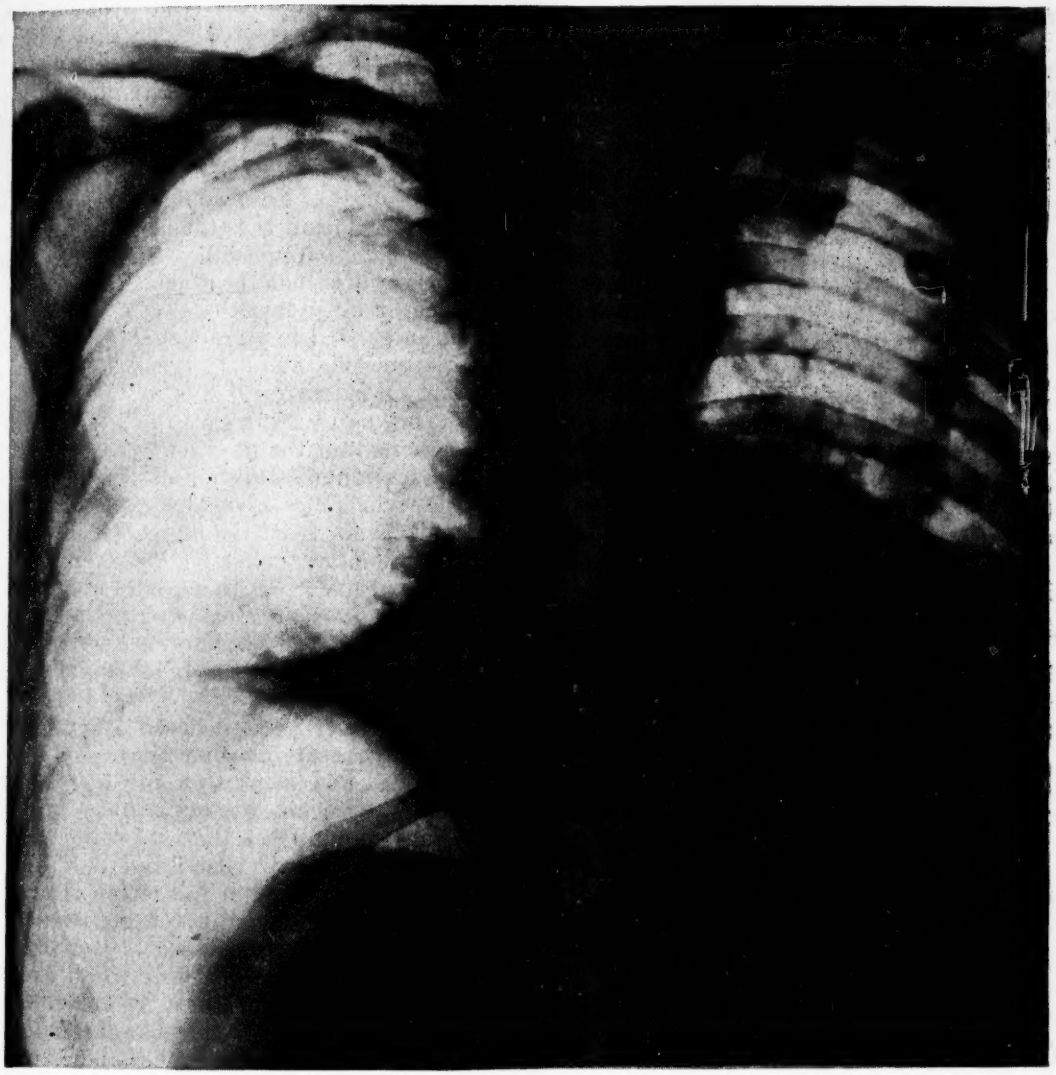
I think I should have to agree with Dr. Cabot that this is not a medical history. It leaves a

great deal to the imagination, and certainly does not tell us a great many of the facts that we want to know.

A renal function of forty-five is perfectly satisfactory.

A non-protein nitrogen of 45.9 milligrams is a little high, but with kidneys just demonstrated normal, with 110 milligrams, we cannot say anything about this.

If one of my house officers returned that history and examination to me, and said "Will you operate tomorrow?" I should try to convey to him that he had not given me the facts that he should give me. There are a good many things that I should like to know, both in the history and examination. Because on what we know here we have no adequate basis for a diagnosis that justifies operation. Of course I say that with knowledge, first, that hospital records are sometimes inadequate, and second that we often do not get the same impression from reading a story that we do from the same story plus the patient. But I should like to know more about his digestive troubles, about his bowels, so far as history is concerned, and then whether that irregularity in the duodenum would be present a second time after atropin. I should like to know whether a barium enema would run into an obstruction at the same point that the meal did. Because certainly we have no right ever to make a diagnosis of duodenal ulcer on such an irregularity of the duodenum in one X-ray. An irregularity of the duodenum in X-ray can come from other things besides ulcer, as for instance cholecystitis with distortion from adhesions, which might conceivably be the trouble here. The fact that they mention the barium column "was at the beginning of the transverse colon, where it terminated abruptly," suggests that there might be trouble there, and there might be carcinoma of the colon. A barium enema would be the thing to establish that fact. On the other



Taken May 17. Shows mottled dullness at both bases. The diaphragm is distinctly elevated on the left. There is a well defined gas bubble between it and the surface of the liver.

hand, cholecystitis might cause adhesions enough to obstruct the transverse colon.

In other words, I cannot make a diagnosis on the facts given here, but I might if I saw the patient.

Miss Painter: On the 27th they wrote, "Will have a barium enema tomorrow." The operation was done on the 28th.

Dr. Young: I should ask Dr. Cabot if he is willing to make a diagnosis sufficient to do an operation here?

Dr. Cabot: Certainly not. That bulge is not likely to have anything to do with this?

Dr. Young: One of the causes of pain in the right upper quadrant that must never be forgotten is epigastric hernia, the hernia that is merely a slight break in the fascia with protrusion of a little fat tab. It will cause gastric and right upper quadrant pain in itself, and because it is a very indefinite thing it is often overlooked. The other day a case of very puzzling right upper quadrant pain was in for study, and I suggested that one of the students make a list of causes sufficient to cause this pain. He handed me a list of forty-three, and the residents, the house officers and I added four more that we thought of. So that it is a spot in the body where it is very difficult always to clear up the situation.

In going over the cases of chronic cholecystitis last winter we found that a number were failures. Three came back for study at my request, and in spite of the fact that they did have attacks of pain in the right upper quadrant, the most complete tests that we could give them failed to show the cause of that pain. So far as we could tell we ruled out the forty-seven varieties and the pain was still there.

Dr. Young's Pre-operative Diagnosis

Not made.

Pre-operative Diagnosis

Malignancy of the intestine.
Epigastric hernia.

Operation, First Admission

Gas and ether. Median incision from xiphoid to umbilicus. At the pylorus was a hard indurated mass closely adherent to the head of the pancreas, giving an inflammatory appearance The pancreas was large, hard and nodular and felt like carcinoma. The liver was negative. The appearance of the stomach suggested ulcer, but the mass in the pancreas was more strongly suggestive of cancer with secondary involvement of the pylorus. A posterior gastro-enterostomy was done to anticipate obstruction.

X-ray Report April 5, Four Years and a Half After the First Operation

The stomach was in the usual position and freely movable. A posterior gastro-enterostomy on the lesser curvature, lower third, functioning well. The stomach emptied normally. There was a constant irregularity of the duodenal cap consistent with an old ulcer.

Further Discussion

At the second admission the renal function is still good, the non-protein nitrogen well within normal.

I never heard of an icteric index of one. Normally it is five, six, or seven. The only way I can correlate clay-colored stools and an icteric index of one is to say that the liver has gone out of business, and there is a state of cholemia, if we want to use that term, or of liver insufficiency, which is a definite and I think a better term for it.

The test meal at least would suggest that there was no retention in the stomach, that the stoma was still functioning well. The X-ray report does not say whether the stomach was emptying by stoma or by pylorus.

I am interested to know whether this means a gastrojejunocolic fistula?

Dr. A. O. Hampton: Yes.

Dr. Young: I think that the X-ray gives the answer here, and the question is whether or not this is a malignant situation or whether it is the situation which has been reported occasionally, namely a fistula from the old gastroenterostomy into the colon.

Dr. Hampton: If this plate was taken at this time it shows the stomach filled through the colon by way of the fistula.

Dr. Young: That is probably it. That looks like an enema.

Dr. Hampton: Yes, it does. But they could have given both at the same time.

Dr. Young: I think they did not from this. Probably the enema was separate. The fistula is the only thing I see that is proved. He has gone four and a half years, and that is a long time for a malignancy in the region that he had his trouble to go without a fatal result, especially as he had symptoms for a year before he came in. So that I see nothing to do except to go in and see whether there is a fistula only, which is a condition which can be helped, or whether it is based upon malignancy, in which case it cannot be helped.

Dr. Edward L. Young's Diagnosis

Gastrojejunocolic fistula?
Malignant disease of the colon.

Pre-operative Diagnosis

Gastrojejunal ulcer and gastrocolic fistula.

Operation, Second Admission

Gas-ether. Left paramedian incision. Some adhesions in the region of the duodenum. Very few in the region of the gastro-enterostomy.

The pyloric region was exposed. The pylorus was found patent. There was a scar on the duodenum but otherwise very little pathology in this region, and few signs of the ulcer which was found at the previous operation. There was only moderate thickening in the pancreas. At the site of the gastro-enterostomy there was a distinct inflammatory mass. The transverse colon, the stomach and the first portion of the jejunum were closely united. When separated it was found that there was a common opening leading into the colon, the stomach and the jejunum. The colon was isolated and the fistulous opening about as large as a half dollar was closed. The jejunum was separated from the stomach and the opening into the stomach was closed. This revealed an ulcer in the jejunum opposite the stoma in the stomach which was about an inch in diameter. The portion of the gut which included this ulcer was excised and the jejunum united by end-to-end sutures. There was considerable unavoidable contamination of the abdomen during the operation. On account of the condition of the patient and the lack of pathology in the duodenum it seemed wiser to do this operation than a radical excision of the lower half of the stomach. The abdomen was closed without drainage.

PATHOLOGICAL REPORT, SECOND ADMISSION

A section of small gut 18.5 centimeters long. Midway between the cut ends there is a shallow ulcer in the mucous membrane measuring 1 by 2.6 centimeters. It has clear cut, smooth margins and a deeply excavated base. In the overlying mesentery there is a cluster of enlarged and soft lymph nodes.

Microscopic examination shows a simple ulcer whose base is composed of cell-rich connective tissue which extends through all the coats of the intestine.

Further Discussion

They ruled out malignancy, I should assume, on the length of time.

In other words, the ulcer was in the place where the X-ray found the persistent bit of barium, or the place where the barium had become adherent to an ulcer. So the original condition was ulcer with an inflammatory thickening of the pancreas and no malignancy, and the situation now was, as the pathology probably goes, first the jejunal ulcer and the adhesions to the transverse colon, and then the fistulous tract through.

Of course this is making a patient in a run-down condition undergo a very severe operation anyway, and with the possibility of infection it means a very severe risk, because of course we have to recognize the fact that infection is not so much a matter of soiling of the peritoneum as it is of poor resistance of the patient whose peritoneum is soiled.

Active peristalsis is watched for because if there is spreading peritonitis there is the complete atony of the bowel without peristalsis.

Blood tinged sputum, I have always been taught, means lung pathology.

May 17 was eleven days after operation, long enough so that we are fairly sure this was not peritonitis.

Apparently with this X-ray, giving us such a definite picture, he did have peritonitis which he localized as a subphrenic abscess.

Dr. Hampton: That gas would indicate not necessarily subphrenic abscess.

Dr. Young: You mean that gas would last as long as that unless there was a cause for it in abscess? This was eleven days after operation. Gas in the peritoneal cavity is absorbed fairly rapidly unless there is something to keep it up. He was operated on May 6, and May 17 X-ray showed the diaphragm elevated on the left and a well defined gas bubble between it and the surface of the liver. Wouldn't that probably spell abscess?

Dr. Hampton: There was gas formation in the peritoneal cavity. It would not necessarily mean abscess under the liver, I think.

Dr. Young: As I understand this the gas bubble was not in the stomach.

Dr. Hampton: No, but raised the whole diaphragm up.

Dr. Young: That could not be in the stomach. It ought to be in the free peritoneal cavity.

Dr. Hampton: Yes.

Dr. Young: Then how did it get there except from a leakage or from an abscess?

Dr. Hampton: From peritonitis or perforation with peritonitis.

Dr. Young: So that apparently the story is peritonitis which he did more or less localize, I should think from the length of time and from that picture, and then the infection spreading through the diaphragm and the involvement of the lower part of the lungs, and death from sepsis both below and above the diaphragm.

INTERPRETATION OF X-RAY MAY 17

Appearance is that of a subphrenic accumulation of gas probably due to subdiaphragmatic abscess.

CLINICAL DIAGNOSIS (FROM HOSPITAL RECORD)

Jejunocolic fistula.

DR. EDWARD L. YOUNG'S DIAGNOSIS

Gastrocolic fistula.
Peritonitis.
Septicemia.

ANATOMIC DIAGNOSES

1. *Primary fatal lesion.*

General peritonitis following repair of gastrocolic fistula.

2. *Secondary or terminal lesions.*

Chronic bronchiectasis.
Bronchopneumonia.
Hemorrhagic bronchitis.
Multiple abscesses of the lungs.

DR. MALLORY: Death here was primarily due to infection, almost certainly spread by the operative attempt to close up a fistula running into as contaminated an organ as the cecum. There was a generalized peritonitis with fibrin on the surface of all the viscera and a moderate amount of free fluid containing a good deal of pus. There was of course the evidence of the reparative work done at the operation, a suture in the stomach where the old enterostomy wound had been, then a portion of the jejunum had been excised on either side of the ulcer, and then there was a further suture in the colon. The sutures in the latter had given way and there was considerable leakage of feces through the suture line.

There was one other lesion of considerable importance. That was in the lungs, symmetrically on both sides. In the lower lobes there was a definite chronic dilatation of bronchi and rather large bronchiectatic cavities. The appearance both in gross and histologically suggests that they were of considerable age, and I do not believe they could have been formed in the twelve days that passed between operation and the man's death. I think he unquestionably had them previous to his operation, and that they had not been picked up in previous examinations.

Unquestionably, of course, the shock of the operation and the infection elsewhere in the body may have caused the old process to have become acute and to have increased considerably in size.

The other organs were all essentially negative.

DR. CABOT: I did not hear what you said about the duodenum.

DR. MALLORY: The duodenum showed a very shallow erosion of the type that we see in a good many of our cases, barely through the mucous membrane, not extending beneath the muscular mucosa. That is a common finding in perhaps twenty per cent. of all our cases. Then there was an old scar of the previous ulcer, which had entirely healed up. I do not think this new little erosion had anything to do with the previous ulcer.

DR. YOUNG: Did you find anything in the liver, anything that would go with these clay-colored stools and the icteric index?

DR. MALLORY: Not at all. The patient was not jaundiced. There was no dilatation of the ducts.

DR. YOUNG: I think we have to say that that finding was wrong.

DR. CABOT: As you see it, there was no particular mistake made in the first operation? They did the only thing there was to do?

DR. YOUNG: There was no mistake. And this —gastrojejunal and jejunal ulcers—is one of the complications that make the operation of gastroenterostomy a little questionable in the minds of certain men. In New York, particularly in the Jewish race, the percentage of gastrojejunal ulcer is as high as thirty to thirty-five per cent., so that at Mt. Sinai a radical partial gastrectomy is recommended for every duodenal ulcer. Other clinics report, for instance I think Balfour reports, only about one and a half to two per cent. of gastrojejunal ulcers. So that apparently the incidence has something to do with the racial factor; at least that is the best explanation given. But this is the best thing we could have done.

DR. CABOT: Is there anything in the findings to show why the surgeon should have felt a very hard pancreas in the first examination?

DR. MALLORY: No.

DR. CABOT: Do you think he did?

DR. MALLORY: No; I think he felt a normal pancreas.

DR. YOUNG: I think it is one of the most difficult things with one's hand in the abdomen to tell just what is felt. There is so much tissue that we do not know what it is between our fingers and the pancreas.

DR. CABOT: There is a very real difference in what the pathologists and the surgeons find about the pancreas. The surgeons know a great deal about chronic inflammation of the pancreas. They are still talking about it on the basis of findings just like this, which I believe are illusory.

THE VALUE OF PROTECTIVE HEALTH MEASURES

As to results accomplished from the direct application of health work to industries, the Metropolitan Life Insurance Company's figures are probably more accurate than any others we have. Their statement for the year ending December 31, 1926, shows that lives saved among industrial policyholders from 1911 to 1925 in excess of general mortality improvement numbered 240,000 people; lives saved among policyholders in 1926, as compared to the death rate in 1911, 63,330 people. In other words, by the application of protective health measures to industrial workers they paid 63,330 fewer death claims. This means that not only fewer death claims were paid, but it also means happiness and well-being for thousands of families.—*Dr. T. F. Abercombe, quoted by U. S. Daily.*

THE BOSTON

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THE SYSTEMATIZATION OF RESEARCH

RECENTLY articles have appeared in both scientific publications and the lay press criticizing as wasteful and unwieldy our system of carrying out research in science and in medicine. Perhaps some of these criticisms have been justified. Just as the artist, or would-be artist takes refuge in the "artistic temperament" to explain his self-indulgence, so the dabbler in research may excuse his lack of system or lack of results by blaming it on the carpriciousness with which science bestows her gifts on the favored few.

Granted that some research is "unworthy of the name" and that much is sloppily done, nevertheless the great dividends which it pays are too well realized to grudge whole-hearted support to the research problems of either medicine or science in general.

However, it is quite possible that there is opportunity for reform and for elimination of waste in our research activities, particularly in medicine. The great industrial research foundations, such as those of the General Electric, Eastman Kodak, or the National Electric Lamp Association are doing splendid work in pure research, and investing great sums of money in the advancement and discovery of general scientific principles which have no immediate application. However, they do, to a certain extent, expect value received from the money that they have put into their research laboratories.

No doubt it is an advantage for a medical student to gain some familiarity with the methods of research during his time in school, but many of them fritter away a portion of their time on valueless problems and half-done work. More than once we have seen and attempted to help students who, in a sudden burst of enthusiasm, thought out a problem for themselves and means of attacking it, only, after a considerable amount of apparatus, time and money have been put into it, to decide that it was not worth pursuing further, or were forced to give it up through the necessary progression of the medical school curriculum. It is particularly discouraging to read over in the catalogues of the universities' graduate schools the lists of titles of the Ph.D. thesis and to note the rarity of titles which indicate any real advancement to our fund of knowledge. A reprint came to our desk not long ago, a Ph.D. thesis, devoted to "The Growth Markings on the Scales of the Oceanic Sun Fish," another "The Migration of Pigment in the Shrimp's Eye." No doubt these are bricks in our general structure of knowledge, but one can not help wondering whether the cost of production of these bricks is not such as to make the production of the finished temple of wisdom so stupendous as to be beyond human resources.

A more careful over-seeing of the so-called research activities of our various graduate schools will undoubtedly add materially to the real value of the work done. Unfortunately, research for research's sake has become a fetish which does more harm than good. The student who devotes himself too soon to a narrow problem does, it is true, gain some impression as to the methods of attack; on the other hand, he is using time that should be spent acquiring general principles and fundamental knowledge in his field, rather than working in a highly specialized subdivision with virtually no practical value.

Research well justifies the time, effort and resources which have been devoted to it, but it would be well for us to take stock and make sure that we are not over-emphasizing it and encouraging those unqualified to devote their time to it. It would seem as though a more careful and more intelligent supervision of research activities and a more careful outline of the problem before entering into it would be worth while, as well as insistence on at least a certain distance of travel along the mapped out path before following some one of the multitude of entrancing byways that open up from it. It is time that we begin to recognize that the dilettante is not restricted to art.

THE STORY OF THE INCANDESCENT LAMP

MANY of the advances in medical progress have been directly dependent upon the invention of the incandescent lamp. The inspection of various cavities of the body, such as the nasopharynx, the bronchi, the rectum and the bladder, has become a satisfactory procedure only since the development of a practical electric light. It is of interest to the medical profession, therefore, to have the history of the evolution of the incandescent lamp as well told as it is in a little book by Howell and Schroeder.*

Although the first recorded incandescent lamp was made in 1820 by De la Rue, the practical application of this principle began with the installation of an arc light in Dungeness Light house in England in 1862. The principle of the incandescent lamp was well understood, but the chief obstacle in the way of making a practical lamp was the shortness of life of the filament. Between the years 1862 and 1877 a number of inventors worked on this problem. In 1877 Edison began his study of the subject. He at first abandoned the use of carbon in favor of platinum, although later he again employed carbon, and in 1879 his first lamp patent was granted. Another troublesome problem was that of supplying electricity to a number of lamps in such a way that any number of individual lights could be used. Edison finally solved this problem and in December 1879 he demonstrated his electric lighting system consisting of some sixty lamps at Menlo Park, New Jersey. As Howell and Schroeder express it, "That is what Edison invented: a lamp with a high resistance filament of carbon in a vacuum contained in a glass container closed at all points by fusion of the glass and having platinum wires imbedded in the glass to carry current through the glass to the filament. And this was the first incandescent lamp which was suitable for the system of general multiple distribution which solved the problem of the 'sub-division of the electric light.'"

The first commercial installation of the lamp was made on the Steamship Columbia, which was equipped with four dynamos and 115 lamps. The plant was started on May 2, 1880.

Since that time many improvements have been made. From the physician's point of view, the greatest was that which did away with the heating of the lamp. In the early days of cystoscopy, burns of the bladder from the heat generated by the lamp of the cystoscope were not uncommon. Now these tiny lamps are reasonably durable, surprisingly powerful, and burn without appreciable heat. Thus it is demonstrated that advances in the various departments of science are linked together.

*The History of the Incandescent Lamp, by John W. Howell and Henry Schroeder. Published by the Maqua Company, Schenectady, New York.

THIS WEEK'S ISSUE

CONTAINS articles by the following named authors:

PORTER, C. A. A.B., A.M., M.D. Harvard Medical School 1892, F.A.C.S., Formerly Surgeon-in-Chief at Massachusetts General Hospital, John Homans Professor of Surgery Emeritus, Consulting Surgeon to New England Baptist Hospital. His subject is: "Introduction of Dr. Rudolph Matas." Page 700. Address: 116 Beacon St., Boston.

CUSHING, HARVEY. A.B., A.M., LL.D., M.D. Harvard Medical School 1895, F.A.C.S., F.R.C.S. England and Ireland, Surgeon-in-Chief at the Peter Bent Brigham Hospital, member of the American Surgical Association and the American Academy of Arts and Sciences. His subject is: "Presentation of the Medal." Page 701. Address: Peter Bent Brigham Hospital, Boston.

MATAS, RUDOLPH. LL.D., M.D. Tulane University of Louisiana School of Medicine 1880, F.A.C.S., Professor of Surgery at Tulane University of Louisiana School of Medicine, Chief of Surgical Division of Touro Infirmary, Senior Visiting Surgeon to Charity Hospital, Consulting Surgeon to the Eye, Ear, Nose, and Throat Hospital. His subject is: "The Surgeon His Science and His Art." Page 702. Address: 2255 St. Charles Ave., New Orleans, La.

WHEATLEY, FRANK E. A.B., M.D. Tufts Medical School 1914, Assistant Professor of Radiology at Tufts Medical School, Roentgenologist to the Milton and Goddard Hospitals, Consulting Roentgenologist at Waltham Hospital. Address: 520 Beacon St., Boston. Associated with him is:

ELLSWORTH, SAMUEL W. A.B., M.D. Harvard Medical School 1896, Assistant Professor of Roentgenology at Boston University Medical School, and Roentgenologist at Massachusetts Homeopathic Hospital. Address: 520 Beacon St., Boston. Their subject is: "Abdominal Palpation in the Vertical Position." Page 713.

HEINZ, HERSCHEL. B.S., M.D. Harvard Medical School 1925, Assistant Visiting Obstetrician at St. Luke's Hospital, New Bedford. His subject is: "Transverse Myelitis Complicating Pregnancy and Labor." Page 714. Address: 415 County St., New Bedford, Mass.

STEVENS, EDWARD F. Fellow of the American Institute of Architects. His subject is: "The Present Trend of Hospital Construction." Page 724. Address: 45 Newbury St., Boston.

MORISON, HORACE. Executive Secretary of the Boston Health League. His subject is: "Hospital Councils." Page 726. Address: Boston Health League, Boston, Mass.

CLAPP, RAYMOND. Member of the Cleveland Health Council. His subject is: "The Hospital Council in Cleveland." Page 727. Address: Cleveland Health Council, Cleveland, Ohio.

BOWDITCH, INGERSOLL. Trustee of the Faulkner Hospital. His subject is: "How to Interest Trustees in Their Own Hospitals." Page 734. Address: 111 Devonshire St., Boston.

The Massachusetts Medical Society

SECTION OF OBSTETRICS AND GYNECOLOGY

1927—1928

Chairman, Foster S. Kellogg, M.D.; Secretary, Frederick L. Good, M.D.; Clerk, Frederick J. Lynch, M.D.

All communications should be sent to the Clerk, care of BOSTON MEDICAL AND SURGICAL JOURNAL.

THE PROGRAM FOR THE YEAR

In accordance with the vote of the section at the June meeting, 1927, the following committee has been appointed by the chairman for the purpose of studying the incidence of Puerperal Sepsis in Massachusetts for the year 1927-1928.

Charles E. Mongan, M.D., Somerville, Chairman; Thomas Almy, M.D., Fall River; Richard S. Benner, M.D., Springfield; Thomas R. Goethals, M.D., Boston Lying-In Hospital; Charles J. Kickham, M.D., St. Elizabeth's Hospital; Joseph W. O'Connor, M.D., Worcester; A. K. Paine, M.D., Salvation Army Hospital; Louis E. Phaneuf, M.D., Carney Hospital.

The officers of the section are members ex-officio.

It must be realized that if this committee is to be successful, coöperation and help from each member of the Massachusetts Medical Society doing obstetrics is a vital necessity. In this connection it may be pointed out that investigation of this important subject is being conducted by physicians themselves. The problem as we are approaching it is not a social service one nor a public health problem. It is purely medical. The committee represents merely a group of members to gather and work up available material of the whole section, and not a group of outside investigators prying into individual results in each physician's obstetrical work. No obstetrical section of any other state society in the United States has attempted this problem in this way. To reiterate, the success of the project depends on the coöperation of every man practicing obstetrics in Massachusetts whether a general practitioner or a specialist.

This column will be conducted each week in the BOSTON MEDICAL AND SURGICAL JOURNAL primarily to answer queries from practitioners. These answers will give approved and conservative consideration to obstetrical problems which may arise in practice. Such queries should be sent to Dr. Frederick J. Lynch, Clerk of the Section, care of the BOSTON MEDICAL AND SURGICAL JOURNAL. In addition to answering each query brief essays on various obstetrical subjects will be published in the column from time to time. Occasionally, comment will be made on different causes of deaths in the puerperal state as they are reported.

It is our hope that not only will the members of the section coöperate with the committee in their work but that many members of the section will be stimulated to send in questions so that the column may be kept alive with material of interest to the practitioner of obstetrics.

MISCELLANY

MASSACHUSETTS GENERAL HOSPITAL ALUMNI ASSOCIATION

ABOUT 50 members were present at the annual dinner of the Massachusetts General House Pupils Alumni Association, held on Monday evening, October 17, at the Harvard Club. Dr. John Bartol, the President, spoke of the need for tennis and squash courts for the internes, and recalled some of the characters who used to be so familiar to old M. G. H. men. Dr. Charles Wells, the Secretary and Treasurer, reported the deaths of alumni. The Nominating Committee reported the following nominations:

For President, Dr. C. A. Porter; 1st Vice-President, Dr. Carl Hedblom; 2nd Vice-President, Dr. Francis Rackemann; 3rd Vice-President, Dr. Oswald Robertson Secy.-Treas., Dr. Charles E. Wells. These gentlemen were elected.

Dr. George C. Shattuck then gave a most interesting talk, illustrated by photographs of his and Dr. Richard Strong's experiences in Central Africa.

CLINICS AT THE PALMER MEMORIAL HOSPITAL

OWING to the increased demand on the facilities of its outpatient department the Palmer Memorial Hospital, 195 Pilgrim Road, Boston, has established the following clinic afternoons for the examination and treatment of patients with benign or malignant tumors:

Tuesday: Tumors of the female pelvic organs.

Wednesday: Tumors of the nose, throat, and accessory sinuses.

Thursday: Tumors of the skin, breast, mouth and internal organs.

Friday: Tumors of the genito-urinary system.

The clinics will be held for the present from 3:30 to 5 P. M. Radium and deep and superficial X-ray therapy are available. These afternoons have been arranged so far as possible to supplement the outpatient afternoons at the Collis P. Huntington Memorial Hospital.

NEW ENGLAND SURGICAL SOCIETY

THE Recorder hastens to say that he committed an error in reporting the annual meeting at Manchester. The luncheon at the Elliot Hospital on Friday was most generously provided by the nine active members of the Society in the State of New Hampshire and they should be given the credit for it, and the thanks of the Society. They are to consider this an apology for the error.

BOGUS HEALTH DEPARTMENT INSPECTOR

IT has come to the attention of the Department that a man who represents himself to be an inspector of the "State Board of Health" has visited at least one manufacturing plant in the state. He stated that he was working on stream pollution and wished information about the plant processes. He is said to have collected samples of the wastes discharge.

This man was not connected with the State Department of Health.

RECENT DEATHS

MARTIN—DR. HARRY CHARLES MARTIN, a Fellow of the Massachusetts Medical Society since 1898, died suddenly of heart disease at his home in Longmeadow, September 12, 1927, aged 51.

He was born at Milford December 1, 1875, the son of Antoine and Mary Martin, who were descendants of the Martins who settled in Salem, Mass., and Stonington, Conn. His early life was spent in Milford and Millbury, his residence in the latter town being from 1881 to 1895. He resided in Springfield from 1899 to 1900 and then moved to Longmeadow, where he had since made his home. His early education was received in the town of Millbury and he entered Dartmouth College in 1895 and was graduated from Dartmouth Medical School in 1898. After graduation he came to Springfield, where he began to practice, and it was not long before Dr. Martin had become recognized as one of the leaders of his profession in Springfield.

Although he was sought several times to seek office, only once did he accept, running for the Longmeadow School Committee in 1902, to which office he was elected. His pleasing personality and ability to "mix" brought him thousands of friends, and it was predicted that if he had entered the political field he would have gone far.

Dr. Martin's chief interest outside his profession, however, was the Massachusetts National Guard. He joined the State military forces in 1909, receiving a commission as second lieutenant. He was promoted to captain of the Quartermaster Corps and then later was transferred to the Medical Corps, being appointed first lieutenant. When the United States entered the World War he was immediately promoted to captain in the Medical Corps and sailed overseas with the 104th Infantry.

He served with the 104th for several weeks, following the arrival of the regiment in France in October, 1917, and was transferred to the 101st Regiment. On June 23, 1918, he was promoted to major in the Medical Corps. During his 19 months in France he saw service in practically all of the major engagements in which the 26th Division participated. His war service broke his health, and upon his return home he suffered continually from heart trouble.

He married Emma Carrie Putnam of Sutton, April 25, 1899, at Sutton. Mrs. Martin's death in January of this year was a decided shock to her husband There are no children.

Dr. Martin was a member of Longmeadow Post, American Legion; Hampden Lodge, A. F. and A. M.; Tyrian Royal Arch Chapter of Millbury, Massachusetts Medical Society, American Medical Association, Springfield Academy of Medicine, Springfield Medical Association and the Nayasset Club.

PEABODY—DR. FRANCIS WELD PEABODY, Professor of Medicine in Harvard Medical School, died at his home in Cambridge, October 13, 1927, at the age of 45, following a long illness.

OBITUARY

WILLIAM ABRAM DRAKE

WILLIAM ABRAM DRAKE was born in Concord, New Hampshire, October 22, 1849, and died in Weymouth, August 22, 1927. At an early age he enlisted as a musician in the First Battalion, Maine Sharpshooters, afterwards consolidated with the 20th Regiment Maine Infantry, and was discharged as a private July 16, 1865. His academic education was obtained at Colby Academy, Augusta, Maine. He graduated from the Medical Department of Bowdoin College in 1879. After obtaining a clinical hospital experience at the United States Marine Hospital, Maine, came to Weymouth in 1880. He was admitted to the Massachusetts Medical Society in 1883 and was one of its councillors. He was also a member of the American Medical Association. He served for two years as president of The Norfolk South District Medical Society. Doctor Drake was a man of ability. Shortly after coming to Weymouth, he interested himself in the educational institutions of the town, was elected and re-elected to the school board, term after term, for more than twenty years, nearly all that time being chairman of the board. He practiced his profession with care and diligence, was ever ready to answer to the call of suffering under all conditions, and was particularly attentive to the afflictions of the worthy poor. He was always ready to assist his brother practitioner by counsel and action. His passing is greatly lamented by the people whom he served, and his memory as a physician will be cherished.

The Norfolk South District Medical Society offers its sympathy to his widow, and to his only son who is a valued member of this society.

JOHN C. FRASER,
OLIVER H. HOWE,
FRANK C. GRANGER,
Committee.

CORRESPONDENCE

MISTAKEN INTERPRETATION OF THE RECLASSIFICATION OF INSURANCE RATES BY THE UNITED STATES FIDELITY AND GUARANTY COMPANY.

Physicians Liability Insurance
for
Members of the Massachusetts Medical Society

October 24, 1927.

Editor, Boston Medical and Surgical Journal:

There is some misunderstanding about the reclassification of physicians under the United States Fidelity and Guaranty Company's new rates, for malpractice indemnity insurance.

Under the first group headed General Practice (no surgery) is intended to include obstetrics, as most general practitioners do this class of work.

The wording in the third classification, Gynecology and Obstetrics, is intended only for doctors who specialize in this class of work. In other words, any general practitioner doing obstetrics will come under the first classification.

Any general practitioner doing obstetrics and surgery will come under the second classification.

The extra charge for the use of radium is intended only for physicians who own and use radium. This is not intended for physicians who occasionally use radium which belongs to a hospital.

If there is any question please communicate with the agent.

GEORGE H. CROSBIE.

79 Milk Street, Boston, Mass.

RESUME OF COMMUNICABLE DISEASES IN MASSACHUSETTS

SEPTEMBER, 1927

GENERAL PREVALENCE

Disease prevalence for September was slightly higher than expected.

While scarlet fever has almost returned to a normal incidence, more cases were reported for this September than for any previous September. It is very likely that the disease will surpass the high mark of 1924, when 14,410 cases were reported.

Poliomyelitis was reported in larger numbers than during any September since 1916. The incidence was six times as high as the Prosodemic Index. From figures during the past three weeks, it seems likely that the peak of the incidence was reached September 15.

The incidence of measles is rapidly returning to normal from its low incidence during the winter. Influenza, German measles, chickenpox, typhoid fever, diphtheria, mumps and tuberculosis continue to run moderately close to normal incidence.

RARE DISEASES

Anterior poliomyelitis was reported from Abington, 2; Amesbury, 7; Amherst, 2; Andover, 1; Arlington, 4; Attleboro, 1; Bellingham, 1; Belmont, 3; Billerica, 1; Boston, 95; Braintree, 3; Bridgewater, 1; Brookline, 2; Burlington, 1; Cambridge, 14; Chelmsford, 2; Chelsea, 3; Cheshire, 1; Dedham, 3; Dracut, 1; Erving, 1; Everett, 4; Fall River, 5; Falmouth, 1; Foxboro, 1; Gardner, 2; Georgetown, 3; Gloucester, 4; Hanover, 1; Hatfield, 1; Haverhill, 48; Holyoke, 1; Lawrence, 3; Lexington, 1; Lowell, 3; Lynn, 14; Malden, 5; Marshfield, 1; Medford, 3; Melrose, 1; Merrimac, 2; Methuen, 1; Middleboro, 1; Milton, 5; Natick, 3; Needham, 1; New Bedford, 3; Newbury, 1; Newburyport, 9; Newton, 7; North Andover, 1; North Reading, 1; Northampton, 1; Northbridge, 2; Norwood, 4; Oxford, 1; Peabody, 3; Plainville, 7; Plymouth, 2; Quincy, 5; Randolph, 1; Revere, 9; Rockland, 1; Salem, 7; Saugus, 1; Somerville, 12; Springfield, 3; Swampscott, 1; Taunton, 2; Wakefield, 1; Waltham, 4; Wayland, 1; Westfield, 2; Weymouth, 5; Winthrop, 1; Woburn, 1; Worcester, 9; Wrentham, 3; total, 375.

Dog-bite requiring anti-rabic treatment was reported from Billerica, 3; Boston, 8; Brookline, 1; Danvers, 2; Everett, 1; Fall River, 1; Hingham, 1; Lowell, 15; Medford, 11; Milton, 4; Northbridge, 1; Peabody, 7; Revere, 4; Salem, 3; Springfield, 1; Watertown, 1; Winthrop, 1; total, 65.

Encephalitis lethargica was reported from Boston, 2; Cambridge, 1; Ludlow, 1; Malden, 1; Newburyport, 1; Somerville, 1; Springfield, 1; total, 8.

Epidemic cerebrospinal meningitis was reported from Boston, 2; New Bedford, 1; Springfield, 1; total, 4.

Malaria was reported from Brockton, 1; Chelmsford, 1; total, 2.

Pellagra was reported from Boston, 1; total, 1.

Septic sore throat was reported from Beverly, 1; Boston, 3; Everett, 1; Lynn, 1; Mansfield, 1; New Bedford, 1; West Springfield, 1; total, 9.

Tetanus was reported from Boston, 2; Natick, 1; Springfield, 1; Walpole, 1; total, 5.

Trachoma was reported from Boston, 1; total, 1.

MONTHLY REPORT OF CERTAIN COMMUNICABLE DISEASES

Disease	Cases in entire population				Case rates per 100,000 population		
	Sept., 1927	Sept., 1926	Prosodemic index	Epidemic index	Sept., 1927	Sept., 1926	Expected rate‡
All causes	3,336	2,842	—	—	78.1	67.4	—
Anterior poliomyelitis	375	59	62*	6.0†	8.8	1.4	1.5
Diphtheria	292	209	331*	.9†	6.8	4.9	7.8
Measles	151	70	223*	.7†	3.5	1.6	5.2
Pneumonia, lobar	155	137	116*	1.3†	3.6	3.2	2.7
Scarlet fever	432	353	365*	1.1†	10.1	8.4	8.5
Tuberculosis, pulmonary	384	390	352*	1.1†	8.9	9.2	8.2
Typhoid fever	82	49	90*	.9†	1.9	1.2	2.1
Whooping cough	397	379	483*	.8†	9.3	8.9	11.3
Chickenpox	78	107	—	—	1.8	2.5	—
German measles	24	20	—	—	.6	.5	—
Influenza	20	30	—	—	.5	.7	—
Mumps	116	142	—	—	2.7	3.4	—
Tuberculosis, other forms	70	76	—	—	1.6	1.8	—

*This index is an attempt to estimate the number of cases based on the trend during the past years which can be expected to occur, and is for the purpose of comparison with the number of cases which actually did occur.

†This ratio expresses how prevalent the disease is compared with the index mentioned above: 1.0 indicates that the actual number of cases equals the expected number. A larger number means a greater prevalence, and a smaller number a lesser prevalence than expected. Thus, 2.0 would indicate twice the expected number of cases, and .5 half the expected number of cases. The method used to determine the indices is described in the August 18, 1927, issue of the JOURNAL.

‡Calculated from the Prosodemic Index.

NEWS ITEMS

DR. W. B. CANNON will be chairman of the Committee of Arrangements for the International Physiological Congress. The congress will be held in Boston in 1929.

QUARANTINE IN WEST VIRGINIA AGAINST OHIO—Because of 225 cases of infantile paralysis in Ohio the authorities of Wheeling, W. Va., have proclaimed a local quarantine, thereby preventing persons under 15 years of age entering Ohio from West Virginia.

Experts of the U. S. P. H. Service have been sent to West Virginia and Ohio to study the situation.

Of the cases in Ohio 24 have died and in no case was there more than one afflicted in a family and all were under 18 years of age.

Martin's Ferry, W. Va., has had 46 cases.

NOTICE

UNAUTHORIZED SOLICITOR MAKES ERRONEOUS STATEMENTS

ATTENTION has been called to the erroneous statements made by a John E. C. Marling who claims to be a pre-medical student at Tufts College, which statement is not confirmed by the Registrar. Mr. Marling is not authorized to solicit subscriptions for this JOURNAL.

REPORTS AND NOTICES OF MEETINGS

CENSORS' MEETING

THE Censors of the Middlesex South District Medical Society will meet for the examination of candidates at the Colonial Club, 20 Quincy St., Cambridge, on Thursday November 10, at 4 P. M.

Candidates should make personal application to the Secretary and present their medical diplomas at least one week before the examination.

STEPHEN M. BIDDLE, M.D., *Secretary.*

JOINT MEETING OF MIDDLESEX NORTH AND EAST AND ESSEX NORTH AND SOUTH DISTRICT MEDICAL SOCIETIES

A JOINT meeting of Middlesex North and East and Essex North and South District Medical Societies was held at the State Infirmary, Tewksbury, Mass., on Wednesday, Oct. 19, 1927, at one o'clock P. M. upon the invitation of the Superintendent, Dr. John Holyoke Nichols.

The following program was carried out:

From 1 to 2 P. M. ward visits to Men's Hospital, Women's Hospital, Children's Hospital, Tuberculosis Wards, and Mental Wards, by the Staff, starting from Administration Building.

2 P. M. in Chapel these clinics by Staff were conducted:

1. "Welcome," by G. Forrest Martin, M.D., of Lowell, Chairman Board of Trustees.
2. Announcement by Superintendent.
3. Tuberculosis clinic by James F. Lawlor, M.D.
4. Discussions opened by Sumner H. Remick, M.D., of Boston, Director Division of Tuberculosis State Department of Health.
5. Men's hospital clinic. (a) Surgery, Cancer, and Arthritis; Arthur K. Drake, M.D. (b) Heart Disease and Aneurism, G. Herbert Cleary, M.D. (c) Neurological cases, Wm. M. Izzo, M.D.
6. Woman's hospital clinic. Special cases, Geo. A. Peirce, M.D.
7. Congenital Syphilis, Samuel A. Dibbins, M.D.
8. Talks on Mutism in Mental Diseases with cases, Chas. L. Trickey, M.D., and Chas. J. Carden, M.D.

4 P. M. 1. Talks, "Social Problems in Psychiatry," A. Warren Stearns, M.D., of Boston, Dean Tufts College Medical School.

2. Discussion opened by Francis W. Anthony, M.D., of Haverhill, Vice Chairman Board of Trustees.
3. Remarks, Mr. Richard K. Conant of Boston, Commissioner of Public Welfare.
4. Remarks, John M. Birnie, M.D., of Springfield, President Massachusetts Medical Society.

At the close of the speaking lunch was served.

The presentation of clinical cases was particularly well arranged, different classes of cases being shown in separate booths, screened off on both sides of the Chapel, each section being labeled and provided with a member of the staff for demonstration. An opportunity for the study of this clinical material was afforded by a forty minute intermission.

Among the exhibits of interest was one from the Pondville Hospital demonstrating the technique of radium application.

Dr. Remick's remarks upon Hilum Tuberculosis were especially instructive. The condition, he stated, is without pathology save that of lymphatic infection and that, under proper treatment, nearly all early cases are curable. The diagnosis rests upon history, symptoms, tuberculin tests (Von Pirquet) and X-ray examination. X-ray affords the most reliable information, and without this evidence the diagnosis cannot be made. He spoke in praise of the work in tuberculosis done at the Infirmary but felt that better results would be secured if adequate appropriations were forthcoming.

Mr. Richard A. Conant, Commissioner of Public Welfare for the Commonwealth, spoke concerning the placing of cases of tuberculosis and expressed the opinion that such difficulty as existed might be due to the change of policy of the State Department of Public Health, by

which some of the sanatoria formerly available for the reception of adult cases of pulmonary tuberculosis are now in use exclusively for special types of cases.

Dr. John M. Birnie, President of the parent society, referred to the approaching centenary of the BOSTON MEDICAL AND SURGICAL JOURNAL which will occur in February, 1928, and intimated that a change of name of this publication is under consideration, the object being to adopt a title which might suggest that the JOURNAL is the organ of the medical profession of all New England. He spoke also of the advantage to the Society of the recently created office of Executive Secretary to the President, and called attention to the fact that broadened activities must result in increased dues. A permanent home for the Society he thought should be considered in the near future.

WM. T. HOPKINS, *Reporter for Essex South.*

MASSACHUSETTS PSYCHIATRIC SOCIETY

THE Annual Dinner and Meeting of the Massachusetts Psychiatric Society will be held at the University Club, 40 Trinity Place, Boston, at 6:30 P. M., Friday, October 28, 1927.

The speaker of the evening will be Frederick Lyman Wells, Ph.D., Chief of the Psychological Laboratory, Boston Psychopathic Hospital, who will address the Society on "The Psychometric Factor in Medical Problems."

WINFRED OVERHOLSER, *Sec. and Treas.*

MEETING OF THE HARVARD MEDICAL SOCIETY

A MEETING of the Harvard Medical Society was held at the Peter Bent Brigham Hospital on October 11, 1927, Dr. Harvey Cushing presiding.

Several cases were exhibited to illustrate physiological aspects of brain tumors.

The first patient, a sailor, age 36, gave a history of sudden numbness of both lower legs two years ago, followed by rapid loss of sensation and motor power. He has been unable to walk without crutches. Examination disclosed motor paralysis of both legs, diminished sensation below nipple line, increased reflexes, and a crossed Babinski sign. Lipiodal injection was negative for block of spinal cord. Diagnosis: multiple sclerosis (?), cord tumor (?), myelitis (?).

Dr. Fulton then demonstrated a spontaneous patellar clonus, increased on elevation of the leg. Gentle pressure on inner side of thigh caused complete reflex inhibition of the clonus, the elongation of the extensor being associated with involuntary flexor contraction—a reciprocal effect.

The second patient, a woman, age 27, had had attacks of quadriplegia since childhood, usually beginning with pain in the back of the neck, followed by numbness and paralysis of the extremities. She was admitted with beginning quadriplegia which advanced so rapidly with diaphragmatic respiration that an emergency operation was performed. A congenital ependymal cyst at the third cervical segment was removed. She immediately began to move arms and legs.

Dr. Fulton reported that before operation this patient showed a Brown-Sequard distribution with very little position sense on the left and marked impairment of pain and thermic sense on the right. Sensation has now returned, and he showed that she is able to perceive direction of movements imposed on the left digits.

Dr. Sherrington commented that it was extremely interesting to have the assurance that experiments studied in a physiological laboratory find such a direct relationship in the clinic.

The third patient, first seen in 1926, gave a history of left temporal pain, failing vision, and humming sound in the head. Objective findings were: pulsating left exopthalmos, bruit over left occiput, bilateral secondary optic atrophy and right homonymous hemianopsia. A large cirsoid aneurysm of the left occipital lobe was exposed. X-ray treatment was subsequently given. Recently the patient was readmitted.

Dr. Fulton described the peculiar physiological findings noted. While the patient's eyes were being tested, he remarked that when his attention was fixed on very small letters, the noise in his head increased. This was confirmed by listening to the bruit with a stethoscope. Further evidence was obtained with records similar to those used for heart sounds: when attention was fixed, vibrations of larger amplitude were recorded. This suggests that activity of the occiptal lobe is here associated with increased vascularity. Variations in intensity were not obtained with other forms of stimulation.

Dr. Cushing's address on "Brain tumors from a general standpoint" then followed. He emphasized four ways in which contributions to the subject may be made.

First, diagnostic acumen must be improved. It is important to decide whether to operate, and not only where the tumor is but what the tumor is. This involves long careful histories and numerous daily examinations.

Contributions must also be made to surgical technique. Years ago fungus growths, great herniations and meningitis followed these operations. Many are now performed under local anaesthesia, demanding certain responsibilities. For the past year electrosurgical methods have been used, necessitating many readjustments in technique.

Third, the histopathology of the tumors must be studied. It has been found that over sixty per cent. of gliomas formerly regarded as cancer of the brain are really quite benign. One can

determine fairly well what kind of tumor to expect and how to attack it.

Fourth, knowledge of function must be increased. There are many opportunities for the physiologist and psychiatrist to study the return of function after operations.

To illustrate the importance of obtaining a history in chronological order, a case was then presented. A young man with a history of right deafness, headaches, choked disc, nystagmus, numbness of right face and unsteadiness, in the last four years had had over twenty diagnoses made of his trouble, chiefly war neurosis, and multiple sclerosis. On admission a diagnosis of acoustic neurinoma was made. Dr. Cushing pointed out that brain tumor is not an uncommon malady.

Dr. Tracy Putnam then gave a report of further studies on the isolation of an active anterior lobe pituitary principle. He said that many attempts have been made since Dr. Evans' finding to influence the estrual cycle and to produce gigantism. There are great difficulties to overcome. He mentioned the value of sodium benzoate in preserving the extract, and referred to a filter which is superior to the Berkefeld and which gives a clear sterile extract.

Two English bulldogs were exhibited. One had received injections of anterior lobe extract and had outstripped its control. The legs were longer, feet larger, jaw more prognathous, belly protruding, and skin looser. The animals have not reached maturity, so that it is difficult to say that acromegaly has been produced.

The extract has been tried in several humans, but the results are indefinite.

It has been possible to preserve the lives of a few hypophysectomized rats and dogs. Young animals tend to remain infantile. A few showed loss of weight, but when injections of anterior lobe extract were given in minute quantities, growth immediately began. One dog developed a persistent osteomyelitis of the foot following operation; after a few injections of extract were given, the focus healed in five days. This was at first thought to be coincidental, but has since been repeated in other cases. Another dog had the hair clipped because of mange. For months the hair did not grow again. Following injections of the extract, there was a growth of hair resembling lanugo. This, too, has been repeated in other animals.

Dr. Putnam concluded by saying that although the problem of obtaining anterior lobe substance of therapeutic value is still difficult, a new goal is in sight.

CENSORS' MEETING

THE Censors of the Suffolk District Medical Society will meet for the examination of candidates at the Medical Library, No. 8 The Fenway, Thursday, November 3, 1927, at 4:00 o'clock.

Candidates should make personal application to the Secretary, and present their medical diploma at least one week before the examination.

ARTHUR H. CROSBIE, *Secretary.*
520 Commonwealth Avenue, Boston.

NEW ENGLAND PEDIATRIC SOCIETY

THE Combined Meeting of the New England Pediatric Society, the Philadelphia Pediatric Society and the Section of Pediatrics of the New York Academy of Medicine will be held in New York City on Saturday, October 29, 1927.

Members will take the Fall River Boat Train leaving the South Station at 6 P. M. Friday, October 28, 1927. Tickets and staterooms may be purchased on personal application at the South Station, Back Bay Station and 67 Franklin Street, Boston. Reservations may be made through Mr. W. U. Bixby, Ticket Agent, South Station, Boston, Telephone Hubbard 3345. These reservations will be held until 5 P. M. Friday, October 28, 1927.

Please make your own Reservations.

THOMAS H. LANMAN, *Secretary,*
New England Pediatric Society.

MASSACHUSETTS SOCIETY OF EXAMINING PHYSICIANS

THERE will be a meeting and dinner of the Massachusetts Society of Examining Physicians at the Copley Plaza Hotel, Boston, Wednesday evening, November 2, at 6:30 sharp. $2.50 per plate. The papers are: "Reconstructive Surgery of the Face," by Dr. V. H. Kazanjian; Dr. Kurt H. Thoma will discuss "Surgery of the Jaw," and Dr. F. H. Verhoeff "Surgery of the Eye." "What Test May be Used to Determine When a Man Is Under the Influence of Alcohol," by Dr. William J. Brickley. Discussion by Dr. Bernard F. Devine, Superintendent of Haymarket Square Relief Station; Dr. C. Edouard Sandoz, Suffolk County Court, Official Alienist; Dr. Timothy Leary, Suffolk County Medical Examiner; Judge Thomas H. Dowd, Municipal Court, Boston; Captain James A. McDevitt, Police Station 3, Boston.

C. P. SYLVESTER, M.D., *President.*
WILLIAM PEARCE COUES, M.D., *Secretary.*

SOCIETY MEETINGS

October 27, November 1 and 3—Lectures on "The Care of the Patient" will be held at the Harvard Medical School, Amphitheatre C, at 5 P. M. Complete list of speakers appears on page 501 of the September 22 JOURNAL.

October 28—The regular meeting and luncheon of the Massachusetts Association of Boards of Health will be at the Hotel Bellevue, Beacon Street, Boston, at 12:30 P. M. For complete program see October 20 JOURNAL, page 693.

October 28—The annual dinner and meeting of the Massachusetts Psychiatric Society will be held at the University Club, 40 Trinity Place, Boston. For details see page 755, this issue.

October 28 and 29—Massachusetts State Nurses' Association, Hotel Kimball, Springfield.

October 29—New England Pediatric Society. Combined meeting with Philadelphia Pediatric Society and Section of Pediatrics